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Resource Conservation and Recovery Act  
Facility Investigation Report  
Volume 7  
Chemical Process Cell Waste Storage Area

West Valley Demonstration Project  
West Valley, New York

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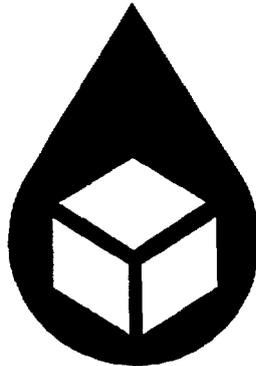
**WEST VALLEY DEMONSTRATION PROJECT**  
**WEST VALLEY, NEW YORK**

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**Resource Conservation and Recovery Act**  
**Facility Investigation Report**  
**Volume 7**

**Chemical Process Cell Waste Storage Area**



**West Valley Nuclear Services Company, Inc.**

**and**

**Dames & Moore**

**WVDP-RFI-023**

Prepared for:  
U.S. Department of Energy  
Ohio Field Office  
West Valley Area Office

December 1996  
10282 Rock Springs Road  
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Prepared for:

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Facility Investigation Report  
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Chemical Process Cell Waste Storage Area

Table of Contents

	<u>Page</u>
List of Acronyms . . . . .	ix
Key to Analyte Abbreviations . . . . .	xi
1.0 Introduction . . . . .	1
1.1 Purpose and Objective . . . . .	1
1.2 Information Contained in this Report . . . . .	1
2.0 Source Characterization . . . . .	3
2.1 Location and Geologic and Hydrologic Setting . . . . .	3
2.2 CPCWSA Description, Operating History, and Waste Characterization . . . . .	3
2.2.1 CPCWSA Tent . . . . .	4
2.2.2 Outside Storage Area . . . . .	9
3.0 Environmental Characterization . . . . .	11
3.1 Groundwater, Soil, and Sediment Sampling Activities and Results . . . . .	11
3.1.1 Groundwater . . . . .	11
3.1.1.1 Routine Groundwater Sampling and Analysis . . . . .	12
3.1.1.2 Expanded Groundwater Characterization Program: Fourth-Quarter 1993 and Second-Quarter 1994 . . . . .	13
3.1.2 Soil and Stream Sediment . . . . .	14
3.1.2.1 Surface Soil Sampling Program . . . . .	14
3.1.2.2 Deep Soil Sampling Program . . . . .	15
3.1.2.3 Stream Sediment Sampling . . . . .	16
3.2 Quality Assurance/Quality Control Summary . . . . .	17
4.0 Fate and Transport . . . . .	19
4.1 Chemical Properties and Toxic Profile . . . . .	19
4.2 Pathway Assessment . . . . .	19
5.0 Conclusions and Recommendations . . . . .	21

Table of Contents *(concluded)*

	<u>Page</u>
References .....	23
Appendix A. Nuclear Fuel Services Decontamination Solutions	
Appendix B. Monitoring Well Boring Logs and Construction Diagrams	
Appendix C. Contamination Indicator Parameters	
Appendix D. Fourth-Quarter 1993 and Second-Quarter 1994 Expanded Groundwater Program Data	
Appendix E. 1993 CPCWSA Surface Soil Data	
Appendix F. 1993 Borehole Boring Logs	
Appendix G. 1993 CPCWSA Borehole Soil Data	
Appendix H. 1993 CPCWSA Stream Sediment Data	

List of Tables

- 2-1. Waste Inventory in the Storage Boxes at the Chemical Process Cell Waste Storage Area
- 2-2. Waste Inventory in Drums Contained within the Concrete Shield Containers in the Chemical Process Cell Waste Storage Area Tent
- 3-1. Schedule of Groundwater Sampling and Analysis
- 3-2. Specifications for Wells Monitoring the Chemical Process Cell Waste Storage Area
- 3-3. Fourth-Quarter 1993 and Second-Quarter 1994 Target Analyte List Metals Concentrations in Chemical Process Cell Waste Storage Area Monitoring Well WNW0704
- 3-4. Chemical Analyses Performed at Chemical Process Cell Waste Storage Area Surface Soil (SS), Borehole (BH), and Stream Sediment (ST) Sampling Locations
- 3-5. Organic Compounds Detected in Surface Soil (SS), Borehole (BH) Soil, and Stream Sediment (ST) at the Chemical Process Cell Waste Storage Area
- 3-6. Target Analyte List Metals Concentrations in Surface Soil from Chemical Process Cell Waste Storage Area Location SS-01
- 3-7. Target Analyte List Metals Concentrations in Soil from Chemical Process Cell Waste Storage Area Borehole BH-43
- 3-8. Target Analyte List Metals Concentrations in Stream Sediment near the Chemical Process Cell Waste Storage Area
- 3-9. Degree of Completeness of Analytical Results for 1993 Soils Sampling Program

## List of Figures

- 2-1. Location of the CPC Waste Storage Area (SSWMU #7)
- 2-2. CPCWSA Tent Outside Storage Area
- 2-3. CPCWSA Tent Schematic
- 2-4. CPCWSA Waste Storage Layout
  
- 3-1. Groundwater, Soil, and Stream Sediment Sampling Locations at the CPCWSA
- 3-2. Arsenic in the Sand and Gravel Unit
- 3-3. Barium in the Sand and Gravel Unit
- 3-4. Cadmium in the Sand and Gravel Unit
- 3-5. Chromium in the Sand and Gravel Unit
- 3-6. Lead in the Sand and Gravel Unit
- 3-7. Mercury in the Sand and Gravel Unit
- 3-8. Selenium in the Sand and Gravel Unit
- 3-9. Silver in the Sand and Gravel Unit
- 3-10. Arsenic in the Lavery Till Unit
- 3-11. Barium in the Lavery Till Unit
- 3-12. Cadmium in the Lavery Till Unit
- 3-13. Chromium in the Lavery Till Unit
- 3-14. Lead in the Lavery Till Unit
- 3-15. Mercury in the Lavery Till Unit
- 3-16. Selenium in the Lavery Till Unit
- 3-17. Silver in the Lavery Till Unit
- 3-18. CPCWSA RCRA Facility Investigation Sampling Locations and Analytical Results Summary

List of Acronyms

A&PC	Analytical and Process Chemistry (Laboratory)
ANOVA	Analysis of Variance
ASTM	American Society For Testing and Materials
CDDL	Construction and Demolition Debris Landfill
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CFR	Code of Federal Regulations
CPC	Chemical Process Cell
CPCWSA	Chemical Process Cell Waste Storage Area
EDR	Equipment Decontamination Room
EP	Extraction Procedure
EPA	(U.S.) Environmental Protection Agency
FRS	Fuel Receiving and Storage Area
FSFCA	Federal and State Facility Compliance Agreement
HLW	High-level Waste
$K_{ow}$	Octanol-Water Partition Coefficient
KPa	Kilopascal
LLW	Low-level Waste
LLWTF	Low-level Waste Treatment Facility
MCL	Maximum Contaminant Level
NFS	Nuclear Fuel Services, Inc.
NPOC	Nonpurgeable Organic Carbon
NYSDEC	New York State Department of Environmental Conservation
PAH	Polycyclic Aromatic Hydrocarbon
PCB	Polychlorinated Biphenyl
PCDD	Polychlorinated Dibenzo-p-dioxins
PCDF	Polychlorinated Dibenzofurans
POP	Polyethylene Overpack
QA	Quality Assurance
QC	Quality Control

List of Acronyms (*concluded*)

RCRA	Resource Conservation and Recovery Act
RFI	RCRA Facility Investigation
R&S	Radiation and Safety (Department)
RWID	Radioactive Waste Inventory Database
SEFOR	Southeast Fast Oxide Reactor
SSWMU	Super Solid Waste Management Unit
SVOC	Semivolatile Organic Compound
SWMU	Solid Waste Management Unit
TBP	Tributyl Phosphate
TAGM	(NYSDEC) Technical and Administrative Guidance Memorandum
TAL	Target Analyte List
TCL	Target Compound List
TCLP	Toxicity Characteristic Leaching Procedure
TOC	Total Organic Carbon
TOX	Total Organic Halogen
UNH	Uranyl Nitrate Hexahydrate
USCS	Unified Soil Classification System
VOA	Volatile Organic Analysis
VOC	Volatile Organic Compound
WNYNSC	Western New York Nuclear Service Center
WVDP	West Valley Demonstration Project
XC-3	Extraction Cell #3

Key to Analyte Abbreviations in Appendices

ABBREVIATIONS	ANALYTES
VOLATILES	
acetone	Acetone
acnitril	Acetonitrile
acrolein	Acrolein
acrylnitr	Acrylonitrile
allylcl	Allyl chloride
benzene	Benzene
br_meth	Methyl bromide
brdcmeth	Bromodichloromethane
brform	Bromoform
c_13_dcp	cis-1,3-Dichloropropene
cc14	Carbon tetrachloride
cl_benz	Chlorobenzene
cl_eth	Chloroethane
cl_form	Chloroform
cl_meth	Methyl chloride
cl_prene	Chloroprene
clevthr	2-Chloroethylvinyl ether
cs2	Carbon disulfide
dbc_meth	Dibromochloromethane
dbc_prop	1,2-Dibromo-3-chloropropane
dbeth_12	1,2-Dibromoethane
dca_11	1,1-Dichloroethane
dca_12	1,2-Dichloroethane
dcdfmeth	Dichlorodifluoromethane

ABBREVIATIONS	ANALYTES
dce_11	1,1-Dichloroethylene
dcp_12	1,2-Dichloropropane
diox_14	1,4-Dioxane
eth_benz	Ethyl benzene
eth_meth	Ethyl methacrylate
hexnone2	2-Hexanone
ibut_alc	Isobutyl alcohol
meacryln	Methacrylonitrile
mek	Methyl ethyl ketone
mene_br	Methylene bromide
mene_cl	Methylene chloride
meth_i	Methyl iodide
methmeac	Methyl methacrylate
mibk	4-Methyl-2-pentanone
picoline	2-Picoline
pntcleth	Pentachloroethane
propnitr	Propionitrile
pyridine	Pyridine
styrene	Styrene
t_13_dcp	trans-1,3-Dichloropropene
t_14dc2b	trans-1,4-Dichloro-2-butene
tca_111	1,1,1-Trichloroethane
tca_1112	1,1,1,2-Tetrachloroethane
tca_112	1,1,2-Trichloroethane
tca_1122	1,1,2,2-Tetrachloroethane
tcf_meth	Trichlorofluoromethane
tcp_123	1,2,3-Trichloropropane

ABBREVIATIONS	ANALYTES
tetcleth	Tetrachloroethylene
toluene	Toluene
tricleth	Trichloroethylene
vnvl_ace	Vinyl acetate
vnvl_cl	Vinyl chloride
xylene	Xylene (Total)
PESTICIDES and PCBs	
a_bhc	alpha-BHC
aldrin	Aldrin
b_bhc	beta-BHC
chlrdane	Chlordane (Total)
d_24	2,4-D
d_bhc	delta-BHC
ddd_44	4,4'-DDD
dde_44	4,4'-DDE
ddt_44	4,4'-DDT
dieldrin	Dieldrin
dinoseb	Dinoseb
disulftn	Disulfoton
endos_1	Endosulfan I
endos_2	Endosulfan II
endos_s	Endosulfan sulfate
endrin	Endrin
endrn_al	Endrin aldehyde
endrn_kt	Endrin ketone
g_bhc	gamma-BHC (Lindane)



ABBREVIATIONS	ANALYTES
cu_t	Copper
fe_t	Iron
hg_t	Mercury
k_t	Potassium
mg_t	Magnesium
mn_t	Manganese
mo_t	Molybdenum
na_t	Sodium
ni_t	Nickel
pb_t	Lead
sb_t	Antimony
se_t	Selenium
sn_t	Tin
ti_t	Titanium
tl_t	Thallium
v_t	Vanadium
zn_t	Zinc
SEMIVOLATILES	
aadimthp	alpha, alpha-Dimethylphenethylamine
aceanf12	2-Acetylaminofluorene
acetophn	Acetophenone
acnphthe	Acenaphthene
acnphthy	Acenaphthylene
amnobph4	4-Aminobiphenyl
aniline	Aniline
antracn	Anthracene

ABBREVIATIONS	ANALYTES
aramite	Aramite
benz_alc	Benzyl alcohol
benzdine	Benzidine
bis2ceth	Bis(2-chlorethyl)ether
bis2cexy	Bis(2-chloroethoxy)methane
bis2clis	Bis(2-chloroisopropyl)ether
bis2ehex	Bis(2-ethylhexyl)phthalate
bnz_a_an	Benzo[a]anthracene
bnz_a_py	Benzo[a]pyrene
bnz_b_fl	Benzo[b]fluoranthene
bnz-k-fl	Benzo[k]fluoranthene
bnzc_acd	Benzoic acid
bnzghipr	Benzo[ghi]perylene
brppeth4	4-Bromophenyl phenyl ether
butbnzph	Butyl benzyl phthalate
carbazol	Carbazole
chppeth4	4-Chlorophenyl phenyl ether
chrysene	Chrysene
clbnzilt	Chlorobenzilate
clnapht2	2-Chloronaphthalene
clphen_2	2-Chlorphenol
dbahanth	Dibenz[a,h]anthracene
dcb_33	3,3'-Dichlorobenzidine
dethylpy	0,0-Diethyl 0-2-pyrazinyl-phosphorothioate
diallate	Diallate
dibznfur	Dibenzofuran
diclph24	2,4-dichlorophenol

ABBREVIATIONS	ANALYTES
diclph26	2,6-Dichlorophenol
diethyph	Diethyl phthalate
dimthoat	Dimethoate
dimthp24	2,4-dimethylphenol
dimthyph	Dimethyl phthalate
dinbutph	Di-n-butyl phthalate
dinoctph	Di-n-octyl phthalate
dintrp24	2,4-Dinitrophenol
dintrt24	2,4-Dinitrotoluene
dintrt26	2,6-Dinitrotoluene
diphhy12	1,2-Diphenylhydrazine
diphnyam	Diphenylamine
dmb_33	3,3'-Dimethylbenzidine
dmb_7_12	7,12-Dimethylbenz[a]anthracene
dntrcr46	4,6-Dinitro-o-cresol
ethmthsl	Ethyl methanesulfonate
famphur	Famphur
flranthn	Fluoranthene
fluorene	Fluorene
hexclbnz	Hexachlorobenzene
hexclbut	Hexachlorobutadiene
hexcleth	Hexachloroethane
hexclpen	Hexachlorocyclopentadiene
hexclphn	Hexachlorophene
hexclpro	Hexachloropropene
indnpyre	Indeno(1,2,3,-cd)pyrene
isodrin	Isodrin

ABBREVIATIONS	ANALYTES
isophron	Isophorone
isosfrol	Isosafrole
kepone	Kepone
m_cresol	m-Cresol
m_dclbnz	m-Dichlorobenzene
m_dntbnz	m-Dinitrobenzene
m_ntranl	m-Nitroaniline
me_mnso4	Methyl methanesulfonate
nthchla3	3-Methylcholanthrene
nthpriln	Methapyrilene
nthynph2	2-Methylnaphthalene
n_dodcan	n-Dodecane
naphthal	Naphthalene
naphthy2	2-Naphthylamine
nntrethy	N-Nitrosodiethylamine
nntrmeet	N-Nitrosomethylethylamine
nntrmorp	N-Nitrosomorpholine
nntrmthy	N-Nitrosodimethylamine
nntrnbut	N-Nitrosodi-n-butylamine
nntrphny	N-Nitrosodiphenylamine
nntrpipr	N-Nitrosopiperidine
nntrprpy	N-Nitrosodi-n-propylamine
nntrpyrr	N-Nitrosopyrrolidine
nphthy11	1-Naphthylamine
npthqn14	1,4-Naphthoquinone
ntr5_otl	5-Nitro-o-toluidine
ntrobenz	Nitrobenzene

ABBREVIATIONS	ANALYTES
nrq4_lo	4-Nitroquinoline 1-oxide
o_cresol	o-Cresol
o_dclbnz	o-Dichlorobenzene
o_ntranl	o-Nitroaniline
o_ntrphn	o-Nitrophenol
o_toludn	o-Toluidine
p_dclbnz	p-Dichlorobenzene
p_ntranl	p-Nitroaniline
p_ntrphn	p-Nitrophenol
p_cresol	p-Cresol
p_phndam	p-Phenylenediamine
parthion	Parathion
pclranil	p-Chloroaniline
pclrmcrs	p-Chloro-m-cresol
pdimthaz	p-(Dimethylamino)azobenzene
phenol	Phenol
phnacetr	Phenacetin
phnanthr	Phenanthrene
pntclbnz	Pentachlorobenzene
pntclnbn	Pentachloronitrobenzene
pntclphn	Pentachlorophenol
prnamide	Pronimide
pyrene	Pyrene
safrole	Safrole
symtrbnz	sym-Trinitrobenzene
tcb_124	1,2,4-Trichlorobenzene
tcb_1245	1,2,4,5-Tetrachlorobenzene

ABBREVIATIONS	ANALYTES
tclph245	2,4,5-Trichlorophenol
tclph246	2,4,6-Trichlorophenol
tceph2346	2,3,4,6-Tetrachlorophenol
trbutphs	Tributylphosphate
triethph	0,0,0-Triethyl phosphorothioate
ttraethd	Tetraethyl dithiopyrophosphate

Key to Analyte Abbreviations for Tentatively Identified Compounds in Appendices

ABBREVIATIONS	ANALYTES
VOLATILES	
hexane	Hexane
tctf_eth	Ethane, 1,1,2-Trichloro, 1,2-Trifluoro
toluene	Toluene
SEMIVOLATILES	
butoxeth	Ethanol -2(2-Butoxyethoxy)
camphene	Camphene
cyclhptr	1,3,5 Cycloheptatriene
cyclobut	Cyclobutene, Z-Propenylidene
dietgyac	Dithylene Glycol Monobutyl Ether Acetate
docosane	Docosane
hexlmeth	Hexanedioic acid, bis (1-meth...)
hexacdio	Hexanedioic acid, dioctyles
hexdcac9	9-Hexadecenoic Acid
hexdcacd	Hexadecanoic Acid
octconte	1-iodo-Octatetracontane
pntdecan	Pentadecane
tetrdcac	Tetradecanoic Acid
tetrdecn	Tetradecane
undecane	Undecane

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## 1.0 Introduction

### 1.1 Purpose and Objective

The purpose and objective of the Resource Conservation and Recovery Act (RCRA) Facility Investigation (RFI) is to determine the nature and extent of releases of hazardous waste or hazardous constituents, as defined in Section III of the Administrative Order on Consent (Docket No. II RCRA-3008(h)-92-0202)[U.S. Environmental Protection Agency 1992]), from solid waste management units (SWMUs) at the West Valley Demonstration Project (WVDP). Pursuant to the RFI Work Plan (West Valley Nuclear Services Co., Inc. December 1993), the primary goal of this investigation is to collect and evaluate information to determine which of the following actions are appropriate for each SWMU or super SWMU (SSWMU): no further action, a corrective measures study, or additional investigations to support one of the other actions.

The intent of this particular volume, Volume 7, of the Resource Conservation and Recovery Act Facility Investigation Report, Chemical Process Cell Waste Storage Area, is threefold: 1) to detail the source and contamination characteristics of the chemical process cell waste storage area (CPCWSA); 2) to identify any potential receptors of contamination that exist as a result of operations at the CPCWSA; and 3) to develop conclusions and recommendations regarding information specific to the contamination assessment of the facilities obtained during the RFI.

General information pertaining to the Western New York Nuclear Service Center (WNYNSC), the regulatory history of the WVDP, the environmental setting of the site, and potential receptors of contaminants is contained in Volume 1 of this RFI report, Introduction and General Site Overview, WVDP-RFI-017 (West Valley Nuclear Services Co., Inc. March 1995).

### 1.2 Information Contained in this Report

Twelve SSWMUs at the WVDP have been identified in the Administrative Order on Consent. This volume of the RFI report, Volume 7, contains information resulting from the investigation of SSWMU #7, the CPCWSA.

The location, design features, operating history, and waste management activities at SSWMU #7 are described in section 2.0. Environmental characterization information is found in section 3.0. Information on potential receptors of contamination is in section 4.0. Conclusions and recommendations are in section 5.0.

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## 2.0 Source Characterization

### 2.1 Location and Geologic and Hydrologic Setting

The CPCWSA, a temporary storage area for radioactively contaminated equipment and waste removed from the process building, is located 274 meters (900 ft) northwest of the process building at the northwest corner of the WVDP (Figure 2-1). The stratigraphic section underlying the CPCWSA, from top to bottom, comprises the sand and gravel unit, the Lavery till, the Kent recessional sequence, the Kent till, and Late Devonian-age bedrock. The sand and gravel unit and the underlying Lavery till are the only stratigraphic units that were investigated in this RFI because these are the primary pathways of concern (West Valley Nuclear Services Co., Inc. March 1995).

The CPCWSA is immediately underlain by up to 2.1 meters (7 ft) of fluvial and alluvial silt, sand, and gravel that comprises the sand and gravel unit. Hydraulic conductivities of  $2.0E-05$  centimeter/second to  $2.6E-03$  centimeter/second have been calculated from slug tests performed on wells screened in this unit (West Valley Nuclear Services Co., Inc. February 1993). Groundwater in this unit flows in a northeasterly direction across the north plateau under a hydraulic gradient of 0.2 and at an estimated velocity of 15.2 to 18.3 meters/year (50 - 60 ft/yr).

The sand and gravel unit is underlain by the Lavery till, an olive-gray, calcareous silty clay that is 12.2 to 18.3 meters (40 to 60 ft) thick beneath the CPCWSA. The hydraulic conductivity of this unit ranges from  $2.0E-08$  centimeter/second to  $6.0E-08$  centimeter/second (Prudic 1982). Groundwater in the Lavery till flows downward towards the Kent recessional sequence at an estimated velocity of  $2.0E-07$  centimeter/second (West Valley Nuclear Services Co., Inc. February 1993).

For additional information concerning the geology and hydrogeology of these units see RFI Volume 1, Introduction and General Site Overview, WVDP-RFI-017 (West Valley Nuclear Services Co., Inc. March 1995).

### 2.2 CPCWSA Description, Operating History, and Waste Characterization

The CPCWSA was built in 1985 as a temporary storage area for radioactively contaminated equipment removed from the chemical process cell (CPC). This stainless steel and carbon steel equipment is contaminated with residues of radioactive waste and is being stored in the CPCWSA until disposition of the waste has been determined.

In 1990, the CPCWSA was identified as a protectively filed unit on the RCRA Part A permit application. In 1994, as a result of waste characterization under the Federal and State Facility Compliance Agreement (FSFCA), the status of the unit changed to an interim status container storage area because mixed waste may be present within the storage unit (West Valley Nuclear Services Co., Inc. July 1994).

The CPCWSA was built in an area that had not been previously used for disposal or storage activities by either Nuclear Fuel Services, Inc. (NFS) or the U.S. Department of Energy. (See Fig. 2-1.) The CPCWSA is a metal-framed fabric-covered tent set on a compacted gravel pad covering approximately 4,310 square meters (46,400 ft<sup>2</sup>). The pad has a minimum 30.48 centimeter (12-in) thickness of compacted clay fill overlain by at least 15.2 centimeters (6 in) of compacted gravel. The pad does not have an engineered drainage system;

however, it is sloped so that precipitation drains away from the storage area. Radioactive waste is stored both inside the tent and outside on the adjacent hardstand (Figure 2-2).

### 2.2.1 CPCWSA Tent

The CPCWSA tent is 15.2 meters (50 ft) wide, 57.3 meters (188 ft) long, and 7.6 meters (25 ft) high (Meigs 1987). The tent is constructed of sprung steel with a self-extinguishing herculite cover (Figure 2-3). The tent is mounted on wheels that run in tracks in the gravel pad, enabling it to be moved out of the way to allow storage boxes to be handled by a crane. The waste in the CPCWSA tent is stored in three types of containers: carbon steel storage boxes, hexagonal concrete shield containers, and steel boxes.

#### a) Carbon Steel Storage Boxes

Twenty-two carbon steel storage boxes, identified by a prefix beginning with 3, 7, or J, are stored in a 6.7-meter (22-ft) wide and 36.6 meter (120-ft) long area in the center of the tent (Figure 2-4). These boxes are filled with radioactively contaminated stainless steel piping, jumpers, and process vessels that were removed from the CPC during its decontamination from 1985 to 1987 (Meigs 1987; West Valley Nuclear Services Co., Inc. July 1994). The storage boxes, which meet U.S. Department of Transportation requirements for "strong and tight" containers (49 Code of Federal Regulations [CFR] 173.24), are sealed with a gasket of Buna-n-rubber and threaded rods and nuts.

Ten of the boxes, designated by a prefix beginning with 3 or 7, were custom-made to accommodate oversized process vessels removed from the CPC. The contents of each of these storage boxes is described in Table 2-1. These boxes were equipped with trunion stands, saddles, and tie-downs to support and secure the enclosed vessels.

Twelve of the storage boxes, labeled J-1 through J-12, are close-fit overpack boxes measuring 1.8 meters by 1.8 meters by 3.6 meters (5.9 ft x 5.9 ft x 11.8 ft). The overpack boxes contain a smaller box holding stainless steel jumpers, piping, or other debris. Seven of these boxes contain piping and hardware while the other five boxes contain miscellaneous waste and equipment removed from the CPC. (See Table 2-1.) The jumpers are stainless steel piping that connected various vessels in the CPC and were designed to be easily disassembled by remote methods.

The CPC was used by NFS from 1966 to 1972 to 1) dissolve spent nuclear fuel before reprocessing; 2) prepare dissolved fuel solutions for solvent extraction; and 3) reduce liquid waste volumes through evaporation (Nuclear Fuel Services, Inc. 1973).

Nitric acid was mainly used to dissolve the spent fuel. However, other chemicals, including hydrofluoric acid, boric acid, chromic acid, aluminum nitrate, and mercuric nitrate, were also used in the dissolvers as reported in the FSFCA Historical Waste Report (West Valley Nuclear Services Co., Inc. July 1994). Several of these compounds are RCRA-defined hazardous constituents.

NFS did not implement a dedicated decontamination program for the vessels in the CPC. However, the high-level and low-level waste evaporation systems in the CPC did receive the decontamination solutions that NFS used to decontaminate vessels in the extraction cells between 1972 and 1974 (Riethmiller June 12, 1981).

The high-level waste (HLW) evaporator (7C-1), HLW accountability and neutralizer tank (7D-4), HLW evaporator condenser (7E-5), low-level waste (LLW) evaporator (7C-2), and LLW accountability and neutralizer tank (7D-10) would have received the following decontamination solutions used by NFS in the decontamination of the extraction cells (Riethmiller June 12, 1981):

- Water
- Type 1 decontamination solution
- Type 2 decontamination solution
- 0.8M aluminum nitrate decontamination solution
- 2.0M nitric acid/0.05M ammonium fluoride decontamination solution
- sodium tartrate decontamination solution
- citric acid/nitric acid decontamination solution

The formula for each decontamination solution is described in Appendix A.

The feed adjustment and accountability tank (3D-1) did not receive decontamination solutions, but it was filled with water and used as a heating and cooling system in the CPC from 1973 to 1985. The repeated circulation of water through tank 3D-1 during this period removed much if not all of any residual material that remained from reprocessing operations.

The external surfaces of the vessels were steam cleaned at a pressure of 1.14 KPa (150 psi) before their removal from the CPC between 1985 and 1987 (Meigs 1987).

After steam cleaning, the vessels were coated with a clear fixative and the interior of each was inspected with a crane-suspended video camera. Most of the vessels were relatively clean on the inside, with the exception of the rework evaporator (7C-4) and the LLW accountability tank (7D-10), both of which had a 0.30-meter (1-ft) thick layer of wet sediment (Meigs 1987). The composition of the sediment is not known. The majority of the wet sediment in 7C-4 and 7D-10 was pumped to the floor of the CPC and transferred to the HLW tanks for storage. The sediment remaining in these two vessels was dried with compressed air. An unknown volume of sediment remains in 7C-4 and 7D-10 and is stored in the CPCWSA.

Process knowledge indicates that listed RCRA hazardous waste is not present in the vessels and jumpers stored in these boxes.

#### b) Hexagonal Concrete Shield Containers

Forty-five hexagonally shaped concrete shield containers, labeled 1 through 45, surround the twenty-two carbon steel storage boxes in the center of the CPCWSA tent. (See Fig. 2-4.) The hexagonal containers are 2.06 meters (6.75 ft) wide and 3.2 meters (10.5 ft) high, each containing twenty-one 208 liter (55 gal) steel drums filled with solid radioactive waste or clean nonradioactive material. (LLW packaging criteria at the WVDP prohibit packaging of free liquids unless they are immobilized.) A total of 945 drums are stored in these shield containers; their general contents are described in Table 2-2. The concrete shield containers are used to reduce radiation exposure levels from the material stored in the twenty-two carbon steel storage boxes, which produce a significant radioactive contact exposure rate.

The material contained in these drums is catalogued in the WVDP Radioactive Waste Inventory Database (RWID). The RWID identifies the container, waste content, radioactivity content, the location or job that

generated the waste, and the location of the container. The following types of radioactive and nonradioactive wastes are present in the concrete shield containers:

- **Low-level Waste Treatment Facility Sludge**

The RWID indicates that 551 drums of radioactive sludge from the low-level waste treatment facility (LLWTF) are stored in thirty-four of the hexagonal containers. These drums are stored in the following hexagonal containers: 1-5, 8, 11-13, 15-27, 29, 31-35, 39-43, and 45. It should be noted that a hexagonal container may contain more than one type of waste. The sludge in these drums was generated between 1983 and 1986.

Since 1972, low-level radioactive wastewater generated at the site has been treated in the LLWTF by flocculation, clarification, and ion exchange.

Ferrous sulfate (1.3 wt %), sodium hydroxide (30 wt %), and clay (10 wt %) were originally added to radioactive wastewater in a flash mixer in the LLWTF, forming a floc composed principally of  $\text{Ca}(\text{OH})_2$ ,  $\text{Mg}(\text{OH})_2$ ,  $\text{Fe}(\text{OH})_3$ , and clay. Greater than 90% of the strontium, cesium, and other radioisotopes in the wastewater would be adsorbed to the clay and  $\text{Fe}(\text{OH})_3$  in the floc. After the floc settled, it was collected, centrifuged, and drummed. For additional information on the operation of the LLWTF, see RFI report Volume 4, Low-level Waste Treatment Facility, WVDP-RFI-021 (West Valley Nuclear Services Co., Inc. June 1995).

Two samples of LLWTF sludge were analyzed in 1990 for target compound list (TCL) volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), pesticides/polychlorinated biphenyls (PCBs), and herbicides. The samples were also analyzed for extraction procedure (EP) toxicity metals and toxicity characteristic leaching procedure (TCLP) metals. Volatile organics were not detected in either sample. The SVOC bis(2-ethylhexyl) phthalate was detected in one of the sludge samples at an estimated concentration of 4,200  $\mu\text{g}/\text{kg}$ . This compound is a common plasticizer and laboratory contaminant. Process knowledge indicates it did not originate from a listed RCRA waste (Baker March 19, 1990).

All EP toxicity and TCLP metal extract concentrations were below the RCRA regulatory levels specified in 40 CFR 261.24.

The analytical results and process knowledge indicate that the LLWTF sludge stored in the CPCWSA does not contain RCRA-listed or characteristic waste and the LLWTF sludge is therefore considered a nonhazardous radioactive waste (West Valley Nuclear Services Co., Inc. July 1994).

- **General Waste - Anticontamination Clothing, Coveralls, Gloves, Herculite, Shoe Covers, Plastic, Wipes**

The RWID identifies 159 drums that contain general waste that are stored in nineteen hexagonal containers. This waste is stored in the following containers: 3-8, 10, 11, 14, 28, 32-39, and 44. General waste includes anticontamination clothing, gloves, plastic bags, wipes, air hoses, herculite, and metal used in or generated during routine process building maintenance and decontamination activities.

The specific contents of eighty of the drums are known; these do not contain any RCRA-listed waste or hazardous characteristics (West Valley Nuclear Services Co., Inc. July 1994).

Three drums contain paint or painting materials such as paint chips, cans, trays, and rollers that are classified as hazardous waste. Although the composition of the paint chips and paint is presently unknown, enamel paints used on-site before 1993 did contain lead and chromate pigments. Since it is not known whether the paint in these drums contain these pigments, this material has been classified as a RCRA mixed waste (D007, D008 [West Valley Nuclear Services Co., Inc. July 1994]).

The specific contents of the remaining seventy-six drums are unknown and will require further evaluation to assign a hazardous waste classification (West Valley Nuclear Services Co., Inc. July 1994).

- Gravel/Dry Cement

A total of 128 drums in nine hexagonal containers store nonradioactive gravel mixed with dry Portland cement. The gravel and cement mixture was used to test material-handling systems in the cement solidification system. These drums are used for shielding purposes. None of these drums contain RCRA-hazardous waste or hazardous constituents. (See Table 2-2.)

- Low-level Waste Treatment Facility Resin

Eighty-five drums of spent ion-exchange resin generated from the treatment of radioactive wastewater in the LLWTF are stored in eleven of the hexagonal containers. The resin in these drums was generated between 1983 and 1986.

Wastewater from the LLWTF flocculator is processed through a clarifying filter and an ion-exchange system to remove additional radioactivity before it is released to lagoons 4 or 5. Duolite Cs-100 ion-exchange resin was used in the LLWTF until December 1988 (Arakali March 14, 1990).

In 1990 three samples of spent resin were analyzed for TCL VOCs, SVOCs, pesticides/PCBs, and herbicides. The samples were also analyzed for EP toxicity metals and TCLP metals.

VOCs were not detected in any of the samples. The SVOCs phenol (25  $\mu\text{g}/\text{kg}$  and 79  $\mu\text{g}/\text{kg}$ ), 4-chloro-3 methylphenol (23  $\mu\text{g}/\text{kg}$  and 72  $\mu\text{g}/\text{kg}$ ), and bis(2-ethylhexyl) phthalate (64  $\mu\text{g}/\text{kg}$ , 193  $\mu\text{g}/\text{kg}$ , and 610  $\mu\text{g}/\text{kg}$ ) were detected in these samples.

Process knowledge indicates that the SVOCs detected in the resin did not originate from a listed RCRA waste (Baker March 19, 1990). The Duolite Cs-100 ion-exchange resin is a phenolic resin that may be the source of the detected phenols. Bis(2-ethylhexyl) phthalate is a common laboratory contaminant and plasticizer that may be used in the production of the ion-exchange resin.

All EP toxicity and TCLP metal extract concentrations were below the RCRA regulatory levels specified in 40 CFR 261.24.

The analytical results and process knowledge indicate the LLWTF resin stored in the CPCWSA does not contain RCRA-listed or characteristic waste and the LLWTF resin is therefore considered to be a nonhazardous radioactive waste (West Valley Nuclear Services Co., Inc. July 1994).

- Dirt, Sand, Gravel, Cement, Concrete, Asphalt

The RWID identifies fifteen drums that contain radioactive and nonradioactive soil, sand, gravel, cement, or concrete. The material in these drums was generated during excavation and decommissioning activities at the WVDP.

Soil or gravel excavated during construction activities is surveyed for radioactivity by West Valley Nuclear Services Co., Inc. Radiation & Safety (R&S) technicians. Soil with radioactivity above background is containerized and placed into storage; otherwise, it is used as backfill in the excavation operation or transferred to a storage pile for future use (West Valley Nuclear Services Co., Inc. July 1994).

Ten of the drums contain radioactive material; the other five drums contain nonradioactive material. Characterization under the FSFCA for these containers has concluded that they are all RCRA nonhazardous.

- Laboratory Waste

Four drums contain waste from the WVDP analytical and process chemistry (A&PC) laboratory. This waste includes planchettes, broken glass/plasticware, bench top wipes, failed equipment, disposable laboratory coats, and gloves.

Liquid waste is not believed to be present in these drums because the A&PC sends radioactive liquid waste to the HLW tanks and nonradioactive liquid waste to the LLWTF (West Valley Nuclear Services Co., Inc. July 1994).

Process knowledge indicates that the waste in these drums does not contain any known RCRA-listed waste nor does it exhibit any hazardous characteristics (West Valley Nuclear Services Co., Inc. July 1994).

- Fuel Receiving and Storage Area (FRS) Canister Cutting Grit and By-Products (Canister Cut-up Operation)

Two drums contain grit and by-products generated during the cutting up of spent fuel storage canisters from the process building's fuel storage pool. These drums are stored in hexagonal container 44. In 1985, a high-pressure liquid cutting system that used garnet grit as an abrasive was used to cut up the aluminum fuel storage canisters. The grit was removed, drained, solidified in cement, and placed into drums for storage in 1985. The grit is expected to contain the alumino-silicate mineral garnet, aluminum from the canisters, and metal oxides that formed on the canisters during the years spent under water.

Process knowledge indicates the grit in these drums does not contain RCRA-listed or characteristic waste and should therefore be classified as radioactive nonhazardous waste (West Valley Nuclear Services Co., Inc. July 1994). The grit does emit a significant radioactive dose rate that requires shielding. One of the drums is shielded with lead and the other is shielded with garnet. Based on the use of the lead as shielding, the drum shielded with lead is considered nonhazardous.

- Sweeping Compound

One drum contains radioactive floor debris and sweeping compound generated during the clean-up of extraction cell #3 (XC-3). This drum is stored in hexagonal container 38. Process knowledge indicates this

waste does not contain any known RCRA-listed waste nor does it exhibit hazardous characteristics (West Valley Nuclear Services Co., Inc. July 1994).

c) Steel Boxes

Thirteen steel boxes, identified by the prefix SR- or SP-, are stored inside the CPCWSA tent but outboard of the hexagonal concrete shielding containers. (See Fig. 2-4.)

The boxes designated SR- and SP- are filled with radioactively contaminated equipment removed from the process building. Nine of the boxes are located in the southwest end and the remainder are at the northeast end of the CPCWSA tent.

The thirteen boxes contain large equipment such as manipulators, glove boxes, crane legs, extraction cell columns, and process vessel sections. Some of this material was size-reduced; others await size-reduction. Process knowledge indicates these boxes with the exception of SR-034 do not contain any known listed hazardous waste nor do they display any hazardous characteristics. Container SR-034 contains a radioactively contaminated lead sludge pig used to transfer 8D-2 sludge samples from the tank farm to the laboratory and radioactively contaminated herculite and wipes generated as a result of drips from the transfer of the 8D-2 sample bottle. As a result of the lead sludge pig, SR-034 is considered RCRA hazardous for lead.

### 2.2.2 Outside Storage Area

Radioactive waste is temporarily stored outside and immediately southeast of the CPCWSA tent on the adjacent hardstand. (See Fig. 2-2.) The following items are stored on this hardstand.

#### Brockway Truck

A Brockway truck used by NFS and the WVDP is stored outside on the CPCWSA hardstand. (See Fig. 2-2.) NFS and the WVDP used the truck to transport radioactive waste and other miscellaneous equipment and material, which caused it to become radioactively contaminated. The truck was removed from service in mid-1991 and it reportedly still contains diesel fuel, oil, and, presumably, hydraulic oil. The truck requires further evaluation to complete a hazardous waste classification (West Valley Nuclear Services Co., Inc. July 1994).

#### Polyethylene Overpack Containers

A total of 198 polyethylene overpack (POP) drums are arranged in two rows parallel to the length of the CPCWSA tent. (See Fig. 2-2.) The POPs are stored on wooden pallets that rest on the compacted crushed stone pad of the CPCWSA and are covered with a cloth tarpaulin. The POP containers contain 195 drums of cement-solidified uranyl nitrate hexahydrate (UNH) solution and three drums of cement-solidified suspected UNH flush.

The UNH solution was a 3M nitric acid solution containing depleted uranium and transuranic radionuclides remaining from the last NFS reprocessing of Southeast Fast Oxide Reactor (SEFOR) fuel. The UNH solution was stored in the process building until 1985. During the initial radioactive operations of the cement solidification system from late 1985 through early 1987, the UNH solution was cement-stabilized into approximately 678 metal drums, each with a capacity of 269 liters (71 gal) (Burke December 10, 1987). The 198 drums outside the CPCWSA were overpacked into the POP containers in early 1989 after the drums had

corroded from the inside outwards (West Valley Nuclear Services Co., Inc. July 1994). The remaining UNH drums are stored in the low-level waste storage area (West Valley Nuclear Services Co., Inc. September 1995).

Characterization of these containers is being performed in accordance with the FSFCA.

#### Storage Boxes

Seven carbon steel storage boxes are stored on the gravel pad immediately southeast of the POPs. (See Fig. 2-2.) The steel boxes are also covered with a cloth tarpaulin. Box SR-013 contains two water demineralizer tanks removed from the utility room. [See Volume 5 of this RFI report, Miscellaneous Small Units, for additional information on the demineralizer tanks (West Valley Nuclear Services Co., Inc. July 1995).] Boxes SR-026 through SR-031 contain pieces of radioactively contaminated shield doors and their associated footers that were removed from the equipment decontamination room (EDR). The shield doors were of carbon steel, concrete, and rebar construction. The footing was of rebar and concrete construction. Process knowledge indicates that these containers do not contain any known listed or characteristic hazardous waste and are therefore classified as radioactive, nonhazardous waste (West Valley Nuclear Services Co., Inc. July 1994).

### 3.0 Environmental Characterization

Knowledge of waste management practices at the CPCWSA and the hydrogeology of the north plateau was used to plan confirmatory soil and groundwater sampling at the CPCWSA. The data collected was assessed to evaluate whether there have been releases of RCRA-regulated hazardous waste or hazardous constituents from this unit. The RFI Work Plan identified the groundwater pathway in the sand and gravel unit as the principal migration pathway for any radioactivity or RCRA hazardous waste or hazardous constituents that may have been released from the CPCWSA (West Valley Nuclear Services Co., Inc. December 1993).

#### 3.1 Groundwater, Soil, and Sediment Sampling Activities and Results

Surface soil, subsurface soil, and stream sediment samples were collected in the vicinity of the CPCWSA during the 1993 WVDP soil sampling program (Figure 3-1). Two rounds of groundwater samples were collected from well WNW0704 during the fourth-quarter 1993 and the second-quarter 1994 expanded groundwater sampling rounds and were analyzed for expanded groundwater parameters. (See Fig. 3-1.) All sampling and analysis was conducted in accordance with the protocols and procedures identified in the RFI Work Plan.

The results from groundwater monitoring and soil sampling were evaluated against proposed 40 CFR 264 Subpart S action levels. In instances where proposed Subpart S action levels for groundwater were not available, alternate criteria such as the New York State Department of Environmental Conservation (NYSDEC) Class GA standards or Safe Drinking Water Act maximum contaminant levels (MCLs) were used. Alternate criteria for soil results were typical eastern U.S. background ranges, site background ranges, or NYSDEC's Technical and Administrative Guidance Memorandum (TAGM) 4046 (New York State Department of Environmental Conservation January 24, 1994).

##### 3.1.1 Groundwater

Groundwater at the WVDP has been routinely sampled for contamination indicator parameters and groundwater quality parameters since 1991 (Table 3-1). In 1993, the 1991 to 1992 contamination indicator parameter data (pH, specific conductivity, nonpurgeable organic carbon [NPOC], total organic halogens [TOX], gross alpha, gross beta, and tritium) were statistically evaluated (Dames & Moore September 1993) using analysis of variance (ANOVA) techniques in the U.S. Environmental Protection Agency (EPA)-developed software Groundwater Information Tracking System/STATistical Analysis System (GRITS/STAT), version 4.2 (U.S. Environmental Protection Agency November 1992).

Based on this evaluation and additional judgmental criteria, such as monitoring well location, forty-nine wells across the site were selected for two rounds of expanded groundwater characterization during the fourth-quarter 1993 and the second-quarter 1994 sampling rounds. The objective of the expanded groundwater characterization was to evaluate whether RCRA-regulated hazardous waste or hazardous constituents were present in groundwater at the WVDP. Groundwater was analyzed for TCL VOCs, SVOCs, pesticides and PCBs, and target analyte list (TAL) metals during the expanded groundwater characterization.

Table 3-2 summarizes the specifications for the nine wells that were used to monitor the CPCWSA and that were evaluated in this RFI. Well NB1S was designated in the RFI Work Plan as the background well for the sand and gravel unit but it has been replaced by wells WNW0301, WNW0401, and WNW0706. A recent geochemical evaluation indicates that NB1S is more indicative of groundwater quality from adjacent bedrock

than of background conditions in the sand and gravel unit. Well WNW1008C is used to represent background conditions in groundwater from the Lavery till.

The RFI Work Plan identified wells WNW0704, WNW0705, and WNW0707 as Lavery till wells. These wells have been reclassified as sand and gravel wells since the sand packs of these wells extend into and are hydraulically connected with the sand and gravel unit. Wells WNW0702 and WNW0703 monitor groundwater in the Lavery till. Based on the 1993 statistical evaluation, well WNW0704 was the only well monitoring the CPCWSA that was sampled and analyzed for expanded parameters during the expanded groundwater characterization program. (See Table 3-2.) The other wells continue to be monitored for the routine parameters. The boring logs and construction diagrams for these wells are included in Appendix B.

The routine and expanded groundwater sampling data from these wells have been examined to evaluate whether there have been any releases of RCRA hazardous waste or hazardous constituents from the CPCWSA.

The contamination indicator parameter data and the expanded groundwater characterization data for these wells are provided in Appendix C and D, respectively.

#### 3.1.1.1 Routine Groundwater Sampling and Analysis

- Contamination Indicator Parameters

The levels of pH, specific conductance, NPOC, and TOX measured in sand and gravel wells WNW0704, WNW0705, and WNW0707 were generally within background concentration ranges for the sand and gravel unit. The pH of water from well WNW0705 and NPOC and TOX in well WNW0704 exceeded background concentration ranges. However, these results are considered representative of natural variations in groundwater quality in the sand and gravel unit and do not represent releases from the CPCWSA. Furthermore, the TOX in well WNW0704 cannot be attributed to TCL organics since none of these compounds were detected in this well during the expanded groundwater characterization. Gross beta concentrations in water from well WNW0704 exceed background concentrations. The source of the elevated gross beta is unknown.

The pH, NPOC, and TOX measured in Lavery till wells WNW0702 and WNW0703 were within background concentration ranges for the Lavery till. However, specific conductance levels in wells WNW0702 and WNW0703 exceeded background concentrations. Higher calcium concentrations in these wells may be responsible for the specific conductance that exceeds background concentrations in the Lavery till.

- Appendix IX Volatiles

Acetone, carbon disulfide, and methylene chloride were detected sporadically in 1991 and 1992 at concentrations less than 16  $\mu\text{g/L}$  in groundwater from several of the wells monitoring the CPCWSA. None of the detections exceeded a proposed Subpart S action level concentration. These compounds are common laboratory contaminants. The NYSDEC RCRA Quality Assurance Project Plan Guidance (March 29, 1991) states that concentrations of common laboratory contaminants in analyte-free water are acceptable at three times the method detection limit. These compounds have the following method detection limits: acetone (10  $\mu\text{g/L}$ ), carbon disulfide (5  $\mu\text{g/L}$ ), and methylene chloride (5  $\mu\text{g/L}$ ). Based on the random detections and NYSDEC guidance, these VOCs are considered not present in groundwater.

### 3.1.1.2 Expanded Groundwater Characterization Program: Fourth-Quarter 1993 and Second-Quarter 1994

Groundwater from well WNW0704 was analyzed for TCL organic compounds and TAL metals during the expanded groundwater characterization program.

- Target Compound List Organic Compounds

No VOCs, SVOCs, pesticides, or PCBs were detected in groundwater from well WNW0704 during the expanded groundwater characterization.

- Target Analyte List Metals

Barium and nickel were the only RCRA hazardous constituents detected in groundwater from well WNW0704 during the expanded groundwater characterization (Table 3-3). However, neither of these constituents exceeded a proposed 40 CFR 264 Subpart S action level.

In order to make comparisons between well WNW0704 and background conditions at wells WNW0301, WNW0401, and WNW0706, groundwater data for the RCRA hazardous constituents arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver from 1991 to the present were statistically evaluated. Data collected during routine and expanded groundwater monitoring from 1991 to the present were used to ensure a sufficiently large population to perform the statistical evaluation. Since antimony, beryllium, and nickel were only analyzed during the two expanded rounds, they were not part of this analysis. The data were evaluated using GRITS/STAT software (U.S. Environmental Protection Agency November 1992), and the results from each location were plotted as 99% confidence intervals, which are shown as vertical bars with a mean point. (See Figures 3-2 through 3-17.)

GRITS/STAT is a comprehensive groundwater database system, designed by the EPA, to store, analyze, and report data generated during groundwater monitoring programs at RCRA, Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), and other regulated facilities and sites.

The three types of statistical intervals most often used in the evaluation of groundwater monitoring results are: Confidence intervals, tolerance intervals, and prediction intervals. Each interval type has distinct uses and interpretations. The interval type encountered most often is the confidence interval, which gives information about the average concentration at a particular well or group of wells, but provides little or no information on the highest extreme concentrations likely to be encountered over time.

The use of GRITS/STAT software in constructing confidence intervals employs a one-sided, 99% confidence limit. Application in the RFIs has consisted of taking the numerical output from GRITS/STAT and creating a graphic display of the two-tailed intervals for both background and downgradient wells chosen to evaluate particular SSWMUs. In doing so, the upper confidence limit for background has been treated as the background concentration. Significant evidence of exceedance has been defined as a lower limit from a downgradient well that exceeds the upper limit for background.

GRITS/STAT has been employed for a number of reasons, including its ability to handle nondetects properly and to check distributional assumptions. It offers flexibility in terms of different approaches to

evaluating data, and its use reduces the likelihood of errors associated with multiple computations by hand (U.S. Environmental Protection Agency July 1992).

All results represent total metals concentrations and are reported in micrograms per liter ( $\mu\text{g/L}$ ). Depending on whether the location was included in the expanded characterization program, four to six results per sampling location were evaluated.

Wells with confidence intervals having lower limits exceeding the upper limits of confidence intervals from background wells statistically indicate groundwater concentrations in these wells are not within background intervals. Those wells that show confidence intervals overlapping the confidence intervals from background wells are considered to have concentrations similar to background wells (Davis 1986; U.S. Environmental Protection Agency 1989; November 1992).

The confidence intervals for the sand and gravel unit are presented in Figures 3-2 through 3-9. The Lavery till confidence intervals are presented in Figures 3-10 through 3-17.

The concentrations of the RCRA hazardous constituents arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver in water from sand and gravel wells WNW0704, WNW0705, and WNW0707 and Lavery till wells WNW0702 and WNW0703 were similar to background concentrations in each of these units, indicating that there have been no releases to groundwater associated with the CPCWSA. (See Figs. 3-2 to 3-17.)

### 3.1.2 Soil and Stream Sediment

The results of the 1993 soil and stream sediment sampling at the CPCWSA are summarized below.

#### 3.1.2.1 Surface Soil Sampling Program

The surface soil sampling program was designed to evaluate the effect of past site operations on surface soils at the WVDP. Twenty-five surface soil sampling locations were selected after a review of the 1990 site-wide overland gamma survey and site operational history. Composite soil samples were collected at each surface soil sampling location. Each composite sample consisted of five individual soil samples collected from the upper 15 centimeters (6 in) of soil. One of the samples was collected from the designated sampling location and the other four were collected 1 meter (3.28 ft) to the north, south, east, and west of the designated sampling location.

Surface soil sampling location SS-1 was chosen to evaluate surface soil conditions in the vicinity of the CPCWSA. (See Fig. 3-1.) No VOCs or above-background radioactivity was detected by field monitoring instruments during the surface soil sampling. Soil from location SS-1 was analyzed for TCL SVOCs and TAL metals (Table 3-4). The analytical results for the surface soil samples are presented in Appendix E and are summarized below.

- Semivolatile Organic Compounds

The polycyclic aromatic hydrocarbons (PAHs) fluoranthene and pyrene were detected at estimated concentrations of  $70.9 \mu\text{g/kg}$  and  $66.2 \mu\text{g/kg}$ , respectively. (See Figure 3-18 and Table 3-5.) However, these concentrations are well below the sample quantitation limit and do not exceed proposed

40 CFR Part 264 Subpart S action levels or NYSDEC TAGM 4046 cleanup objectives. The source of these compounds is unknown but they are commonly associated with asphalt.

- Target Analyte List Metals

The concentrations of metals in soil from SS-1 were compared to proposed 40 CFR 264 Subpart S action levels. Where proposed Subpart S action levels were not available for soil, the concentrations were compared to the concentrations measured in the background surface soil sample SS-11, eastern U.S. metals concentration ranges in soil, and NYSDEC's TAGM 4046 cleanup objectives.

Beryllium was the only metal from SS-1 to exceed a proposed Subpart S action level concentration. However, the concentration of beryllium from this location is within normal background concentration ranges for surface soil at the WVDP.

The concentrations of metals from SS-1 were compared to concentrations measured in soil from background location SS-11 to evaluate whether significant differences existed that may indicate that a release of RCRA hazardous waste or hazardous constituents had occurred from the CPCWSA (Table 3-6). The TAL metals also occur in nature and their concentration in the sand and gravel unit will exhibit considerable variability both stratigraphically and spatially. This variability is related to the variable composition of the soils' protolith, weathering processes that chemically and physically modify soil, and groundwater interactions that modify the geochemistry of the sand and gravel unit.

Considering both the natural variability in the concentration of metals in the sand and gravel unit and variability in soils analyses (often approaching a relative percent difference of 100%, a two-fold difference), a surface soil concentration was not considered as exceeding background levels unless it was at least three times greater than the background concentration.

Based on these assumptions, aluminum and vanadium slightly exceeded the background benchmark concentration for soil in the sand and gravel unit at location SS-11 but were well within eastern U.S. background concentrations. Detected concentrations of cadmium and silver in sample SS-1 slightly exceeded the sample quantitation limit for these metals. Although these analytes were not detected in background sample SS-11, the concentrations of these metals were well below proposed Subpart S action levels and are considered to be within background concentrations.

The metals data from SS-1 indicates that no releases of RCRA hazardous waste or hazardous constituents have occurred from the CPCWSA to the surrounding soils.

### 3.1.2.2 Deep Soil Sampling Program

One deep borehole, BH-43, was drilled hydraulically downgradient of the CPCWSA during the 1993 WVDP soil sampling program. (See Fig. 3-1.) This borehole was positioned hydraulically downgradient from the CPCWSA to characterize the intermittent groundwater pathway from the CPCWSA to the NP-1 gully and to assess whether RCRA hazardous waste or hazardous constituents have been released from the CPCWSA to the sand and gravel unit. Soil from BH-43 was analyzed for TCL VOCs and TAL metals. Table 3-4 shows the depth intervals sampled and the parameters analyzed. No volatile organics or above-background radioactivity in soil from BH-43 were detected by field monitoring instruments. The subsurface boring logs for BH-43 and the

background borehole BH-38 are provided in Appendix F. The analytical results from BH-43 and BH-38 are provided in Appendix G and are summarized below.

- Volatile Organic Compounds

Methylene chloride was the only VOC detected in soil from BH-43 at an estimated concentration of 37.4  $\mu\text{g}/\text{kg}$ . However, this compound was also detected in the associated method blank, indicating it is not representative of soil conditions at this location.

- Target Analyte List Metals

The concentration of metals in soil from BH-43 was compared to proposed 40 CFR 264 Subpart S action levels (Table 3-7). Where proposed Subpart S action levels were not available for soil, the concentrations were compared to the concentrations measured in soil from background borehole BH-38, eastern U.S. metals concentration ranges in soil, and NYSDEC's TAGM 4046.

Beryllium was the only metal in soil from BH-43 to exceed a proposed 40 CFR 264 Subpart S action level. However, the concentration of beryllium at this location is within normal background concentration ranges in the sand and gravel unit at the WVDP.

The concentration of metals in soil from BH-43 was compared to concentrations measured in background borehole BH-38 to evaluate whether there were significant differences that may indicate a release of RCRA hazardous waste or hazardous constituents from the CPCWSA. However, since the TAL metals are also naturally occurring, a metals concentration measured at BH-43 was not considered as exceeding background concentrations unless it was at least three times greater than the highest measured concentration in background location BH-38.

Based on these assumptions, arsenic was the only metal in soil from BH-43 to exceed a site background concentration. (See Table 3-7.) The concentration of arsenic at BH-43 (20.7 mg/kg) slightly exceeded the site background concentration level of 18.18 mg/kg for the sand and gravel unit. However, the single background location may not adequately reflect background arsenic concentrations in the sand and gravel unit. Furthermore, the elevated concentration of arsenic at BH-43 is thought to not represent a release from the CPCWSA as this metal has not been identified as being stored in the CPCWSA. The concentration of arsenic at BH-43 is well below the proposed Subpart S action level.

The metals data from BH-43 indicates that no releases of RCRA hazardous waste or hazardous constituents have occurred from the CPCWSA to the sand and gravel unit in this area.

### 3.1.2.3 Stream Sediment Sampling

Stream sediment sampling conducted during the 1993 WVDP soil sampling program was designed to evaluate whether radiological or chemical contaminants were introduced into surface waters at the WVDP. Stream sediment was sampled from thirty-six locations in streams within and on the boundaries of the WVDP. Rather than sampling coarse-grained sediments, silt and mud deposits in the stream channels were sampled because radioactive and chemical contaminants are considered more likely to associate with these fine-grained sediments through ion-exchange and sorption processes.

Stream sediment was collected from two locations (ST-4 and ST-5) on Quarry Creek downstream of the CPCWSA. (See Fig. 3-1.) ST-4 was selected to evaluate surface drainage contributions from the CPCWSA to Quarry Creek. Surface drainage in the vicinity of the CPCWSA drains to Quarry Creek via the NP-1 gully northeast of the CPCWSA. (See Fig. 3-1.) However, this location also receives runoff from other nearby SWMUs such as the construction and demolition debris landfill (CDDL). ST-5 was selected to evaluate the potential contribution to Quarry Creek from a groundwater seep in the creek's southeast bank northwest of the CPCWSA that discharges groundwater from the sand and gravel unit underlying the CPCWSA. No VOCs or above-background radioactivity were detected by the field monitoring instruments during sediment sampling.

The sediment collected from ST-4 was analyzed for TCL VOCs and TAL metals; ST-5 was sampled only for TAL metals. These parameters were selected because they were determined to be the parameters that would most likely indicate a release.

Table 3-4 identifies the sampling locations and the parameters analyzed. The metals results from ST-4 and ST-5 were compared to proposed 40 CFR 264 Subpart S action levels and to the background location ST-6 in Quarry Creek. (See Fig. 3-1.)

- Semivolatile Organic Compounds

Pentadecane was the only SVOC detected at ST-4. (See Table 3-5.) However, this compound is not a RCRA hazardous constituent.

- TAL Metals

Beryllium was the only metal in stream sediment from ST-4 and ST-5 to exceed a proposed Subpart S action level concentration (Table 3-8). However, the concentration of beryllium from these locations is within normal background concentration ranges for stream sediment at the WVDP.

The metals data from ST-4 and ST-5 indicates that no releases of RCRA hazardous waste or hazardous constituents have occurred from the CPCWSA.

### 3.2 Quality Assurance/Quality Control Summary

The quality, reliability, and validity of the soil and sediment data collected at the CPCWSA is summarized in this section. Data validation records are available in site files and were sent to NYSDEC and the EPA on February 22, 1995 (Matthews February 22, 1995).

#### Field Quality Assurance/Quality Control Review

Field quality assurance (QA) audits were performed during RFI field activities. Surveillance activities included observation of borehole, sediment, and well sampling to ensure adherence to RFI Work Plan sampling procedures. No major deficiencies were noted during field surveillance.

Field quality control (QC) samples used to evaluate sampling techniques included trip blanks, equipment blanks, and field duplicates.

### Laboratory Quality Control Review

Laboratory QC samples, which include method blanks, surrogate spikes, matrix spikes, and laboratory duplicates, are used to determine possible effects that the sample analyses may have on the sample data. Data for the soils program and two expanded groundwater monitoring rounds were validated using the guidelines contained in the RFI Work Plan. Data-qualifying flags were applied to data points that were associated with QC anomalies. The following data qualifiers were used in the data tables contained in Appendices C, D, E, G, and H.

- "U" - The data point should be treated as not detected above the reporting limit.
- "J" - The data point should be considered quantitatively biased or inaccurate; however, the data are usable as presented.
- "UJ" - The data point should be considered not detected. Although the detection limit may be imprecise or inaccurate, the data are usable as presented.
- "R" - The data point is qualitatively or quantitatively unreliable.
- "F" - The data point is subject to interferences that in the professional judgment of the reviewer requires special consideration by the data user although not subject to qualification under normal validation protocols. The data should be used only as detailed in the validation report.

For the overall program, the data met the QA objectives as defined in the RFI Work Plan.

Precision and accuracy of these data have been reviewed and are reflected in flagging. The data generally meet the required precision and accuracy, and all non-"R" flagged data comply with analytical and validation acceptance criteria.

The completeness of the overall soils program data, defined as being usable (not "R"- flagged), was greater than 98.0% for all parameters requested, as shown in Table 3-9. The completeness of the two expanded groundwater monitoring rounds was 98% for the fourth-quarter 1993 round and greater than 96.0% for the second-quarter 1994 round for all parameters requested.

## 4.0 Fate and Transport

The chemical properties, a toxic profile summary, and the fate and transport of the organic compounds detected in soil at the CPCWSA are discussed in this section.

### 4.1 Chemical Properties and Toxic Profile

The migration of inorganic and organic chemicals through environmental media is largely controlled by their physicochemical properties and environmental factors such as pH, redox potential, temperature, and the concentration of other chemical constituents in the media of concern. A review of basic physicochemical properties of specific chemicals can provide insight into the behavior and fate of these chemicals in the environment. Since fluoranthene and pyrene were identified in soil downgradient of the CPCWSA, PAHs will be discussed in this section.

Unless otherwise noted, the information in this section was compiled from the following sources: U.S. Environmental Protection Agency (December 1979), Dragun (1988), and Verschueren (1983).

**Polycyclic Aromatic Hydrocarbons:** The PAHs fluoranthene and pyrene were detected in soil downgradient of the CPCWSA. These compounds have low water solubility, ranging from 1.00E-1 mg/L to 1.00E+0 mg/L, and high octanol-water partition coefficients ( $K_{ow}$ ) that range from 3.00E+4 to 8.0E+4. Fluoranthene and pyrene are expected to adsorb strongly onto organic material in soil and be immobile in the subsurface because of their low solubility and high  $K_{ow}$ . PAHs in soils or sediments are believed to be biodegraded and biotransformed by microbes and multicellular organisms. However, volatilization, hydrolysis, and oxidation are unlikely to significantly influence the fate of PAHs in the environment. Even though PAHs are readily taken up across cell membranes, bioaccumulation is not a significant long-term fate process since PAHs are readily metabolized by all organisms, including humans (Pike 1992).

### 4.2 Pathway Assessment

The primary pathway for potential contaminant transport from the CPCWSA is migration through groundwater to Quarry Creek. Groundwater in the sand and gravel unit flows northeastward beneath the CPCWSA towards seepage discharge points along the banks of Quarry Creek. Since the sand and gravel unit is hydraulically and geographically isolated from off-site groundwater drinking supplies, surface waters are the principal pathway for off-site migration of contaminants originating in groundwater from the CPCWSA. All surface water drainage from the north plateau is to Quarry Creek, Erdman Brook, and Frank's Creek. These creeks drain into Buttermilk Creek, which flows into Cattaraugus Creek approximately 4.15 kilometers (2.6 mi) northwest of the CPCWSA. Access to Buttermilk Creek is restricted and human exposure to the waters of Cattaraugus Creek is limited primarily to recreational use and sport fishing. Neither Buttermilk Creek nor Cattaraugus Creek downstream of the WNYNSC are used regularly as a source of potable water.

Exposure to soil possibly containing hazardous constituents via dermal contact or inhalation of dust and particulates is expected to be minimal since public access to this area is restricted. The transfer of hazardous constituents to humans through consumption of agricultural products and livestock grown or grazed on this land is not a viable exposure route under current land-use conditions.

Three human population groups are potential receptors of contaminants from the CPCWSA: 1) operator personnel working in the CPCWSA; 2) other WVDP personnel; 3) the general population surrounding the site.

Since the CPCWSA lies within the Project premises, the general population's access to the area is restricted; on-site WVDP personnel do have physical access to the CPCWSA.

Operator personnel spend a maximum of two hours per month inspecting and maintaining the CPCWSA. The most significant exposure route to these individuals would be inhalation of vapors and particulates. However, based on the waste profile, exposures via this route are not anticipated.

Other WVDP personnel may be indirectly exposed to the CPCWSA when using the surrounding roadways. The length of exposure in these circumstances is expected to be significantly less than that experienced by operator personnel directly involved in operation and maintenance of the CPCWSA. As is the case for operator personnel, inhalation of vapors and particulates would be the most significant exposure route for other WVDP personnel. However, based on the waste profile, exposures via this route are not expected.

As noted above, the general population surrounding the WVDP is unlikely to be a potential receptor of contaminants originating from the CPCWSA. The shortest distance to the WNYNSC site boundary from the CPCWSA is approximately 1,600 meters (1 mi) to the northeast, and the nearest off-site residence is located about 1,700 meters (1.1 mi) to the northeast. The closest point of general public access to the site is Rock Springs Road, which traverses the WNYNSC 400 meters (1,300 ft) to the west of the CPCWSA. The population within a 16-kilometer (10-mi) radius of the WNYNSC encompasses parts of both Cattaraugus and Erie counties. (See Volume 1, WVDP-RFI-017, for more detailed demographic information.)

In addition, the CPCWSA is geographically and hydraulically isolated from public and private drinking water supplies, Cattaraugus Creek is not used as a source of potable water, and the land associated with the CPCWSA and the WVDP is not used for agriculture, animal husbandry, or hunting.

## 5.0 Conclusions and Recommendations

The purpose of this RCRA facility investigation was to assess the nature and extent of releases of RCRA hazardous waste and/or hazardous constituents from the CPCWSA. Although the CPCWSA is primarily used to temporarily store solid nonradioactive and radioactive waste, four of the containers in it reportedly contain RCRA hazardous mixed wastes (D007 and D008) located in SR-034 and hexagonal containers 6, 7, and 28. Because of the presence of these mixed wastes, the CPCWSA has been designated as a RCRA interim status facility.

Groundwater and soil data collected near the CPCWSA in 1993 and 1994 indicate that RCRA hazardous waste or hazardous constituents have not been released from the CPCWSA.

A review of the groundwater data does not indicate the presence of any TCL organic compounds in groundwater at the CPCWSA. However, the VOC acetone was detected once in background well WNW0706 in 1991 at an estimated concentration below proposed Subpart S action levels. This compound is a common laboratory contaminant and its detection may be discounted as described in NYSDEC's RCRA Quality Assurance Project Plan Guidance (March 29, 1991). Furthermore, there is no known source of this VOC in this area. Barium and nickel were the only RCRA hazardous constituents detected in groundwater from well WNW0704 during the expanded groundwater characterization program. These naturally occurring metals were detected at low concentrations that did not exceed a proposed 40 CFR Part 264 Subpart S action level or a New York Class GA groundwater standard.

A review of the soil and stream sediment data indicates that TCL organic compounds were detected only in surface soil sample SS-1. Two SVOCs, pyrene and the RCRA-hazardous constituent fluoranthene, were detected in this surface soil sample at low concentrations that did not exceed a proposed 40 CFR 264 Subpart S or NYSDEC TAGM 4046 cleanup objective. These compounds are common constituents of asphalt and therefore are not associated with the CPCWSA.

Three naturally occurring metals that are classified as RCRA hazardous constituents were detected at concentrations slightly exceeding background concentrations in two soil samples from the sand and gravel unit. However, none of these metals exceeded a proposed 40 CFR 264 Subpart S action level or a NYSDEC TAGM 4046 cleanup objective.

Beryllium was the only metal in soil and stream sediment at the CPCWSA to exceed a proposed 40 CFR Part 264 Subpart S action level. The concentration of beryllium in soil and stream sediment from every sampling location at the CPCWSA consistently exceeded proposed Subpart S action levels. However, the natural background concentration of beryllium in soil and sediment at the WVDP also exceeds the proposed Subpart S action level for beryllium.

Surface waters draining the WVDP are considered to be the primary migration pathway to off-site receptors for any RCRA hazardous waste and/or hazardous constituents that may be released from the CPCWSA. Although groundwater in the sand and gravel unit is hydraulically isolated from private or municipal groundwater drinking supplies located outside the WVDP and WNYNSC, it discharges from seeps along the edge of the north plateau into Quarry Creek and Frank's Creek, which flow off-site into Cattaraugus Creek and into Lake

Erie. However, under current land-use practices the CPCWSA poses minimal health risks to on-site personnel and to the general population both in the immediate vicinity and farther downstream of the WNYNSC.

Based on the results of this RFI, no further action under the Consent Order is recommended for the CPCWSA.

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Waste Inventory in the Storage Boxes at the Chemical  
Process Cell Waste Storage Area

Storage Box Designation	Equipment Content	Wt <sup>1</sup> (lbs[kg])	Location in CPCWSA
J-1	Jumpers and metallic debris	NK	Center of tent
J-2	Jumpers and metallic debris	NK	Center of tent
J-3	Jumpers and metallic debris	NK	Center of tent
J-4	Jumpers and metallic debris	NK	Center of tent
J-5	Jumpers and metallic debris	NK	Center of tent
J-6	Jumpers and metallic debris	NK	Center of tent
J-7	Jumpers and metallic debris	NK	Center of tent
J-8	Miscellaneous waste/debris	NK	Center of tent
J-9	Miscellaneous waste/debris	NK	Center of tent
J-10	Miscellaneous waste/debris	NK	Center of tent
J-11	Miscellaneous waste/debris	NK	Center of tent
J-12	Miscellaneous waste/debris	NK	Center of tent
3C-1	Dissolver	(35,854[16,263])	Center of tent
3C-2	Dissolver	(35,854[16,263])	Center of tent
7C-2	Low-level Waste (LLW) Evaporator	(21,119[9,580])	Center of tent
3E-2/3E-3	Dissolver Condensers	(19,036[8,635])	Center of tent
7C-4	Rework Evaporator	(16,516[7,492])	Center of tent
7D-10	LLW Accountability and Neutralizer Tank	(15,541[7,049])	Center of tent
7C-1	High-level Waste (HLW) Evaporator	(9,248[4,195])	Center of tent
3D-1	Fuel Accountability and Feed Adjustment Tank	(16,022[7,268])	Center of tent
7D-4	HLW Accountability and Neutralizer Tank	(9,942[4,510])	Center of tent
7E-5/7E-8/3E-1	Condensers from HLW Evaporator, Rework Evaporator, and Feed Adjustment Tank	(2,800[1,273])	Center of tent

<sup>1</sup> Gross weight. (Source: WVDP Radioactive Waste Inventory Database.)  
NK - Not known.

Waste Inventory in the Storage Boxes at the Chemical  
Process Cell Waste Storage Area

Storage Box Designation	Equipment Content	Wt <sup>1</sup> (lbs[kg])	Location in CPCWSA
SP-022	Monorail Crane Leg	NK	Southwest end of tent
SP-026	Equipment Decontamination Room (EDR) Shield Door Footer	(32,590[14,783])	Outside of tent
SP-027	EDR Shield Door Footer	(32,590[14,783])	Outside of tent
SP-028	EDR Shield Door Footer	(32,590[14,783])	Outside of tent
SP-029	EDR Shield Door	(39,655[17,987])	Outside of tent
SP-030	EDR Shield Door	(39,655[17,987])	Outside of tent
SP-031	EDR Shield Door	(39,655[17,987])	Outside of tent
SR-013	Beam/Gratings Demineralizer Tanks(2)	NK	Outside of tent
SR-033	Columns 4C-12, 4C-11	(9,648[4,376])	Southwest end of tent
SR-034	Lead Sludge Pig	(4,108[1,863])	Southwest end of tent
SR-035	XC-3 Vessels	(6,300[2,858])	Southwest end of tent
SR-036	Manipulators	(6,352[2,881])	Southwest end of tent
SR-037	Manipulators/Carts	(9,021[4,092])	Southwest end of tent
SR-038	5C-4, 5D-13A, Beams Alum. Hatch Cover	(9,021[4,092])	Southwest end of tent
SR-039	13-D3 5D1 Bundle of Box Beams	(6,050[2,744])	Northeast end of tent
SR-040	Canisters	(8,003[3,630])	Northeast end of tent
SR-041	Emission Spectroscopy Laboratory Glove Box	(4,688[2,126])	Northeast end of tent
SR-042	Culvert Pipe, XC-3 Pipe	(3,870[1,755])	Northeast end of tent
SR-050	Process Mechanical Cell-Master Slave Manipulator	(3,681[1,670])	Southwest end of tent
SR-051	Shielded Black Box with Drum #4452	(4,657[2,112])	Southwest end of tent

<sup>1</sup> Gross weight. (Source: WVDP Radioactive Waste Inventory Database.)  
NK - Not known.

Table 2-2

Waste Inventory in Drums Contained within the Concrete Shield Containers  
 in the Chemical Process Cell Waste Storage Area Tent

WASTE DESCRIPTION	TOTAL # OF DRUMS	# OF DRUMS WITH SUSPECTED HAZARDOUS WASTE OR CONSTITUENTS *
General Waste - Anticontamination clothing, coveralls, gloves, herculite, shoe covers, etc.	159	Unknown
Dirt, sand, gravel, cement, concrete	15	0
Gravel/Dry Cement	128	0
Low-level wastewater treatment facility sludge	551	0
Laboratory waste	4	0
Fuel receiving and storage area cutting grit with lead and garnet shielding	2	0
Low-level wastewater treatment facility resin	85	0
Sweeping Compound	1	0

\* Waste characterization activities are ongoing pursuant to the Federal and State Facility Compliance Agreement.

Table 3-1

## Schedule of Groundwater Sampling and Analysis

<b>Contamination Indicator Parameters</b> (Four times a year)	pH <sup>1</sup> Conductivity <sup>1</sup> Total Organic Carbon (TOC) <sup>2</sup> Total Organic Halogens (TOX) Gross Alpha Gross Beta Tritium Gamma Isotopic Scan Appendix IX Volatile Organic Analysis (VOAs)
<b>Groundwater Quality Parameters</b> (Analyzed twice a year)	Aluminum <sup>3</sup> Ammonia Bicarbonate/Carbonate Calcium Chloride Iron Magnesium Manganese Nitrate + Nitrite-N Phenols Phosphate <sup>3</sup> Potassium Silica <sup>3</sup> Sodium Sulfate Sulfide <sup>3</sup>
<b>Expanded Characterization Parameters for Project Monitoring Locations Only</b> (Completed 4th Quarter 1993 and 2nd Quarter 1994)	<u>Schedule A (43 locations)</u> Target Compound List (TCL) Radioisotopic  <u>Schedule B (6 locations)</u> Modified Appendix IX <sup>4</sup> (40 CFR Part 264) Radioisotopic  <u>Schedule C (2 locations)</u> Modified Appendix IX <sup>4</sup> Radioisotopic Tributyl phosphate (TBP) N-dodecane  <u>Schedule I (3 locations)</u> Radioisotopic only

<sup>1</sup> Field measurement.<sup>2</sup> Includes nonpurgeable organic carbon (NPOC) only.<sup>3</sup> Analyses performed only once during 1993 because parameters were added to the schedule at mid-year.<sup>4</sup> Does not include polychlorinated dibenzo-p-dioxins (PCDDs) or polychlorinated dibenzofurans (PCDFs).

Table 3-2  
 Specifications for Wells Monitoring the Chemical Process Cell Waste Storage Area

Well ID	Well Position	Unit Screened	Well Depth (ft)	Screen Length (ft)	Bladder Intake Depth (ft)	Well Construction
WNW0301	Background	Sand and Gravel	13.0	5.0	Bailer	SS
WNW0401	Background	Sand and Gravel	17.0	10.0	16.5	SS
WNW0702	Crossgradient	Lavery Till	38.0	10.0	Bailer	SS
WNW0703	Downgradient	Lavery Till	21.0	10.0	20.4	SS
WNW0704*	Downgradient	Sand and Gravel	15.5	10.0	12.2	SS
WNW0705	Crossgradient	Sand and Gravel	21.0	15.0	18.0	SS
WNW0706	Background	Sand and Gravel	11.0	5.0	Bailer	SS
WNW0707	Downgradient	Sand and Gravel	11.0	5.0	10.6	SS
WNW01008C	Background	Lavery Till	18.0	10.0	17.3	SS

\* Well sampled for expanded groundwater parameters during fourth quarter 1993 and second quarter 1994.

SS - stainless steel

Table 3-3

Fourth-Quarter 1993 and Second-Quarter 1994 Target Analyte List Metals  
Concentrations in Chemical Process Cell Waste Storage Area Monitoring Well WNW0704  
( $\mu\text{g/L}$ )

Analyte	WNW0704 - 4th Qtr. 93	WNW0704 - 2nd Qtr. 94	SG-BKGD
Aluminum	182.00	135.00	9,600.00
Antimony	<3.00	<6.00	NA
Arsenic	<3.00	<3.00	NA
Barium	46.30	39.20	NA
Beryllium	<3.00	<3.00	NA
Cadmium	<0.20	<0.20	NA
Calcium	185,000.00	156,000.00 (J)	175,000.00
Chromium	<10.00	<10.00	NA
Cobalt	<20.00	<10.00	NA
Copper	<10.00	<10.00	NA
Iron	310.00	275.00	16,700.00
Lead	<2.00	<2.00	NA
Magnesium	26,200.00	22,000.00	19,100.00
Manganese	9,850.00	10,800.00	411.00
Mercury	<0.20	<0.20	NA
Nickel	76.00	74.40	NA
Potassium	2,590.00	2,190.00	3,760.00
Selenium	<3.00	<3.00	NA
Silver	<0.20	<0.60 (UJ)	NA
Sodium	5,910.00	3,710.00	22,900.00
Thallium	<3.00	<3.00	NA
Vanadium	<20.00	<10.00	NA
Zinc	<10.00	<10.00	NA

NA - Not analyzed

(J) - Estimated result

&lt; - Nondetect

(UJ) - Not detected; estimated detection limit

SG-BKGD is the highest value from wells WNW0301, WNW0401, WNW0706.

Table 3-4

Chemical Analyses Performed at Chemical Process Cell Waste Storage Area  
 Surface Soil (SS), Borehole (BH), and Stream Sediment (ST) Sampling Locations

Location	Depth (ft)	TCL VOCs	TCL SVOCs	TAL Metals	TCL Pest./PCBs
SS-1	0.5		X	X	
SS-11	0.5		X	X	
BH-43	02-04	X		X	
BH-38	00-02			X	
	12-14	X	X	X	X
	26-28	X	X	X	X
ST-4			X	X	
ST-5				X	
ST-6			X	X	

SS-11 - Background surface soil location  
 BH-38 - Background borehole soil location  
 ST-6 - Background stream sediment location

Table 3-5

Organic Compounds Detected in Surface Soil (SS), Borehole (BH) Soil,  
 and Stream Sediment (ST) at the Chemical Process Cell Waste Storage Area  
 (µg/kg)

Location	Analyte	Result	Flag
SS-1	Fluoranthene (S)	70.9	(J)
	Pyrene (S)	66.2	(J)
ST-4	Pentadecane (S) (TIC)	600	(J)

(S) - Semivolatile organic compound  
 (J) - Estimated result  
 (TIC) - Tentatively identified compound

Table 3-6

Target Analyte List Metals Concentrations in Surface Soil from Chemical  
Process Cell Waste Storage Area Location SS-01  
(mg/kg)

Analyte	SS-01	Subpart S Action Levels <sup>1</sup>	TAGM 4046 <sup>2</sup>	Benchmark <sup>3</sup>	Eastern USA Background <sup>4</sup>
Aluminum	14,900	-	SB	12,960	33,000
Antimony	<1.70 (UJ)	30	SB	11.04 (J)	NA
Arsenic	0.99 (J)	80	7.5 or SB	21.81	3-12
Barium	48.5	4,000	300 or SB	73.80	15-600
Beryllium	0.33	0.2	0.16 or SB	0.71	0-1.75
Cadmium	0.30	40	1.0 or SB	*	0.1-1.0
Calcium	3,130	-	SB	345,000	130-35,000
Chromium	13.2	400	10 or SB	24.90	1.5-40
Cobalt	5.52	-	30 or SB	10.89	2.5-60
Copper	11.8	-	25 or SB	57.00	1-50
Iron	19,100	-	2,000 or SB	34,800 (J)	2,000-550,000
Lead	17.7	-	SB	43.20	4-500
Magnesium	2,230	-	SB	86,400	100-5,000
Manganese	439 (J)	-	SB	1,374 (J)	50-5,000
Mercury	0.063	20	0.1	0.093	0.001-0.2
Nickel	10.8	2,000	13 or SB	32.10	0.5-25
Potassium	1,240	-	SB	2,172	8,500-43,000
Selenium	<0.14 (UJ)	-	2 or SB	*	0.1-3.9
Silver	0.43	200	SB	*	NA
Sodium	75.7	-	SB	906 (J)	6,000-8,000
Thallium	<0.14 (UJ)	-	SB	*	NA
Vanadium	22.3	-	150 or SB	21.72	1-300
Zinc	72.0	-	20 or SB	567 (J)	9-50

<sup>1</sup> These action levels are taken from proposed 40 CFR 264 Subpart S.

<sup>2</sup> These values are based on the recommended soil cleanup objective from Table 4 of Appendix A of NYSDEC's TAGM 4046.

<sup>3</sup> Due to natural variability in concentrations, levels are not considered to exceed background unless level is > 3x highest background value.

<sup>4</sup> Eastern USA background values taken from TAGM 4046, Table 4 of Appendix A.

< - Nondetect (J) - Estimated result (UJ) - Not detected; estimated detection limit  
NA - Not analyzed SB - Site background

\* Not applicable because site background value is a nondetect.

Table 3-7

Target Analyte List Metals Concentrations in Soil from Chemical  
 Process Cell Waste Storage Area Borehole BH-43  
 (mg/kg)

Analyte	BH-43	Subpart S Action Level <sup>1</sup>	TAGM 4046 <sup>2</sup>	Benchmark <sup>3</sup>	Eastern USA Background <sup>4</sup>
Aluminum	10,200	-	SB	41,700	33,000
Antimony	4.35 (J)	30	SB	7.62	NA
Arsenic	20.7	80	7.5 or SB	18.18	3-12
Barium	79.6	4,000	300 or SB	417	15-600
Beryllium	0.58	0.2	0.16 or SB	1.98	0-1.75
Cadmium	<0.23	40	1.0 or SB	*	0.1-1
Calcium	1,140	-	SB	88,200	130-35,000
Chromium	10.9	400	10 or SB	53.70	1.5-40
Cobalt	9.29	-	30 or SB	34.50	2.5-60
Copper	34.4	-	25 or SB	74.40	1-50
Iron	32,500	-	2,000 or SB	80,400	2,000-550,000
Lead	23.6	-	SB	42.60	4-61 (rural) 200-500 (suburban)
Magnesium	3,010	-	SB	32,400	100-5,000
Manganese	1,450	-	SB	1,458	50-5,000
Mercury	0.025	20	0.1	0.06	0.001-0.2
Nickel	18.9	2,000	13 or SB	81.90	0.5-25
Potassium	874	-	SB	8,940	8,500-43,000
Selenium	<0.23 (UJ)	-	2 or SB	*	0.1-3.9
Silver	<0.34	200	SB	*	NA
Sodium	52.9 (J)	-	SB	408	6,000-8,000
Thallium	<0.57 (UJ)	-	SB	*	NA
Vanadium	13.7	-	150 or SB	63.90	1-300
Zinc	108.0	-	20 or SB	240	9-50

<sup>1</sup> These action levels are taken from proposed 40 CFR 264 Subpart S.

<sup>2</sup> These values are based on the recommended soil cleanup objective from Table 4 of Appendix A of NYSDEC's TAGM 4046.

<sup>3</sup> Due to natural variability in concentrations, levels are not considered to exceed background unless level is > 3x highest background value.

<sup>4</sup> Eastern USA background values taken from TAGM 4046, Table 4 of Appendix A.

NA - Not analyzed      (J) = Estimated result      (UJ) = Not detected; estimated detection limit      (R) = Unreliable result  
 < - Nondetect      SB - Site background

\* - Not applicable because site background value is a nondetect.

Table 3-8

Target Analyte List Metals Concentrations in Stream Sediment near the  
Chemical Process Cell Waste Storage Area  
(mg/kg)

Analyte	ST-04	ST-05	Subpart S Action Levels <sup>1</sup>	TAGM 4046 <sup>2</sup>	Benchmark <sup>3</sup>	Eastern USA Background <sup>4</sup>
Aluminum	7,670	7,580	-	SB	33,000	33,000
Antimony	1.90 (J)	3.20 (J)	30	SB	9.03	NA
Arsenic	9.0	12.4	80	7.5 or SB	20.64	3-12
Barium	83.3	49.5	4,000	300 or SB	254.40	15-600
Beryllium	0.41	0.42	0.2	0.16 or SB	1.66	0-1.75
Cadmium	<0.22	<0.25	40	1.0 or SB	*	0.1-1.0
Calcium	15,300	4,670	-	SB	11,880 (J)	130-35,000
Chromium	11.3	11.2	400	10 or SB	44.70	1.5-40
Cobalt	8.80	7.30	-	30 or SB	28.59	2.5-60
Copper	16.3	11.0	-	25 or SB	59.70	1-50
Iron	18,600	20,900	-	2,000 or SB	76,200 (J)	2,000-550,000
Lead	10.1	10.1	-	SB	33.60	4-500
Magnesium	5,660	3,190	-	SB	12,120 (J)	100-5,000
Manganese	505	333	-	SB	1,518 (J)	50-5,000
Mercury	<0.070	<0.090	20	0.1	*	0.001-0.2
Nickel	18.8	15.5	2,000	13 or SB	69.60	0.5-25
Potassium	1,410	978.0	-	SB	4,560	8,500-43,000
Selenium	0.21	<0.12	-	2 or SB	*	0.1-3.9
Silver	<0.34	<0.37	200	SB	*	NA
Sodium	82.8	60.7	-	SB	258.60 (J)	6,000-8,000
Thallium	0.12 (UJ)	<0.12 (UJ)	-	SB	*	NA
Vanadium	13.3	10.8	-	150 or SB	47.70	1-300
Zinc	51.0	54.0	-	20 or SB	200.70 (J)	9-50

<sup>1</sup> These action levels are taken from proposed 40 CFR 264 Subpart S.

<sup>2</sup> These values are based on the recommended soil cleanup objective from Table 4 of Appendix A (TAGM 4046).

<sup>3</sup> Due to natural variability in concentrations, levels are not considered to exceed background unless level is > 3x highest background value.

<sup>4</sup> Eastern USA background values taken from TAGM 4046, Table 4 of Appendix A.

< - Nondetect      NA - Not analyzed      (J) - Estimated value      (UJ) - Not detected; estimated detection limit  
SB - Site background

\* - Not applicable because site background value is a nondetect.

Table 3-9

Degree of Completeness of Analytical Results  
 for 1993 Soils Sampling Program

	<b>Radiometric Results</b>			
	Borehole	Surface Soil	Stream Sediment	TOTALS
Activity	100.0%	100.0%	100.0%	100.0%
	<b>Nonradiometric Results</b>			
	Borehole	Surface Soil	Stream Sediment	TOTALS
TCL VOCs	98.9%	95.6%	94.8%	98.2%
TCL Pest./PCBs	100.0%	100.0%	100.0%	100.0%
TAL Metals	99.2%	99.4%	99.2%	99.2%
TCL SVOCs	100.0%	99.6%	100.0%	99.9%
<b>TOTALS</b>	<b>99.3%</b>	<b>99.0%</b>	<b>98.0%</b>	<b>99.2%</b>

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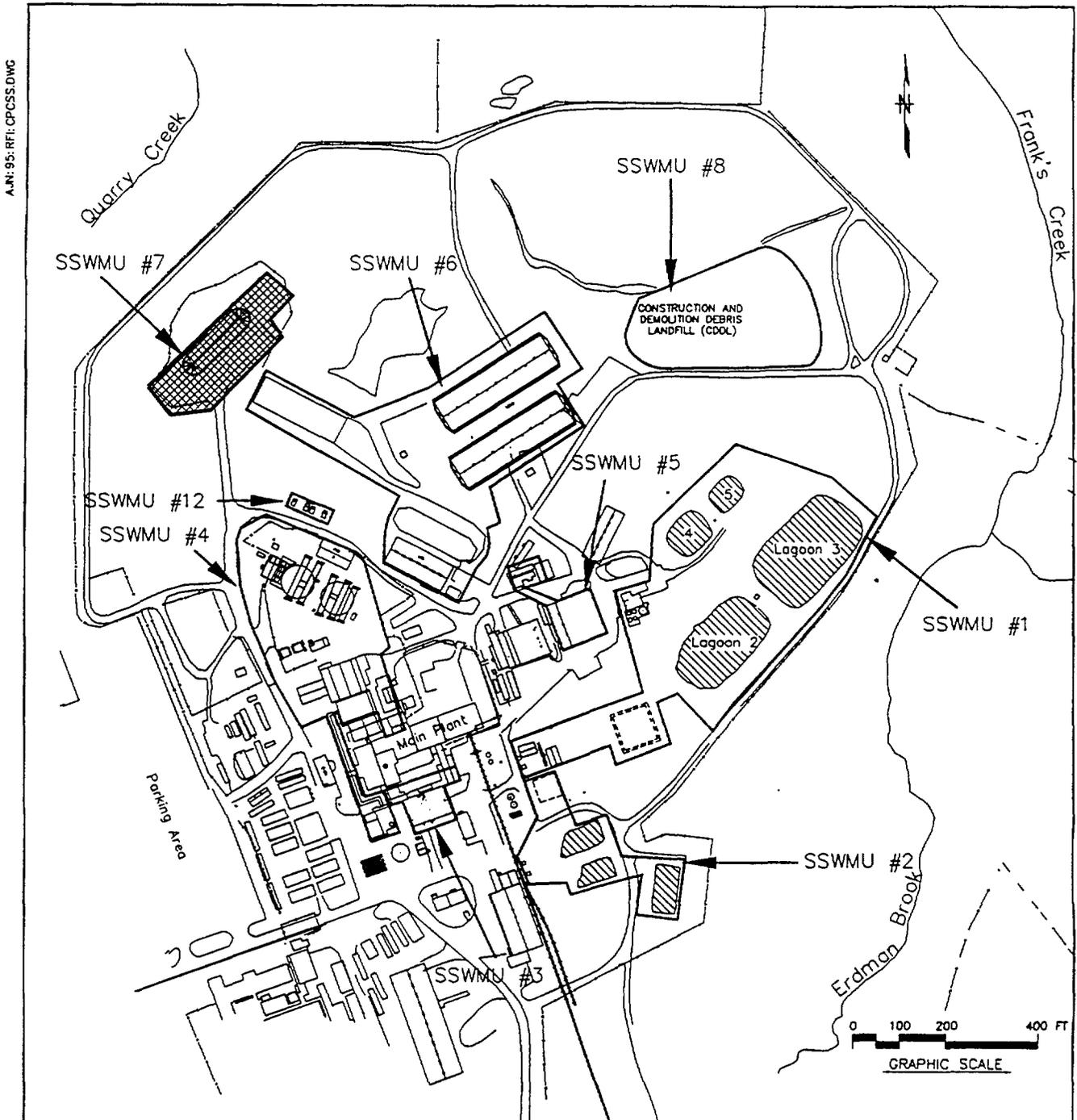


Figure 2-1. Location of the CPC Waste Storage Area (SSWMU #7)

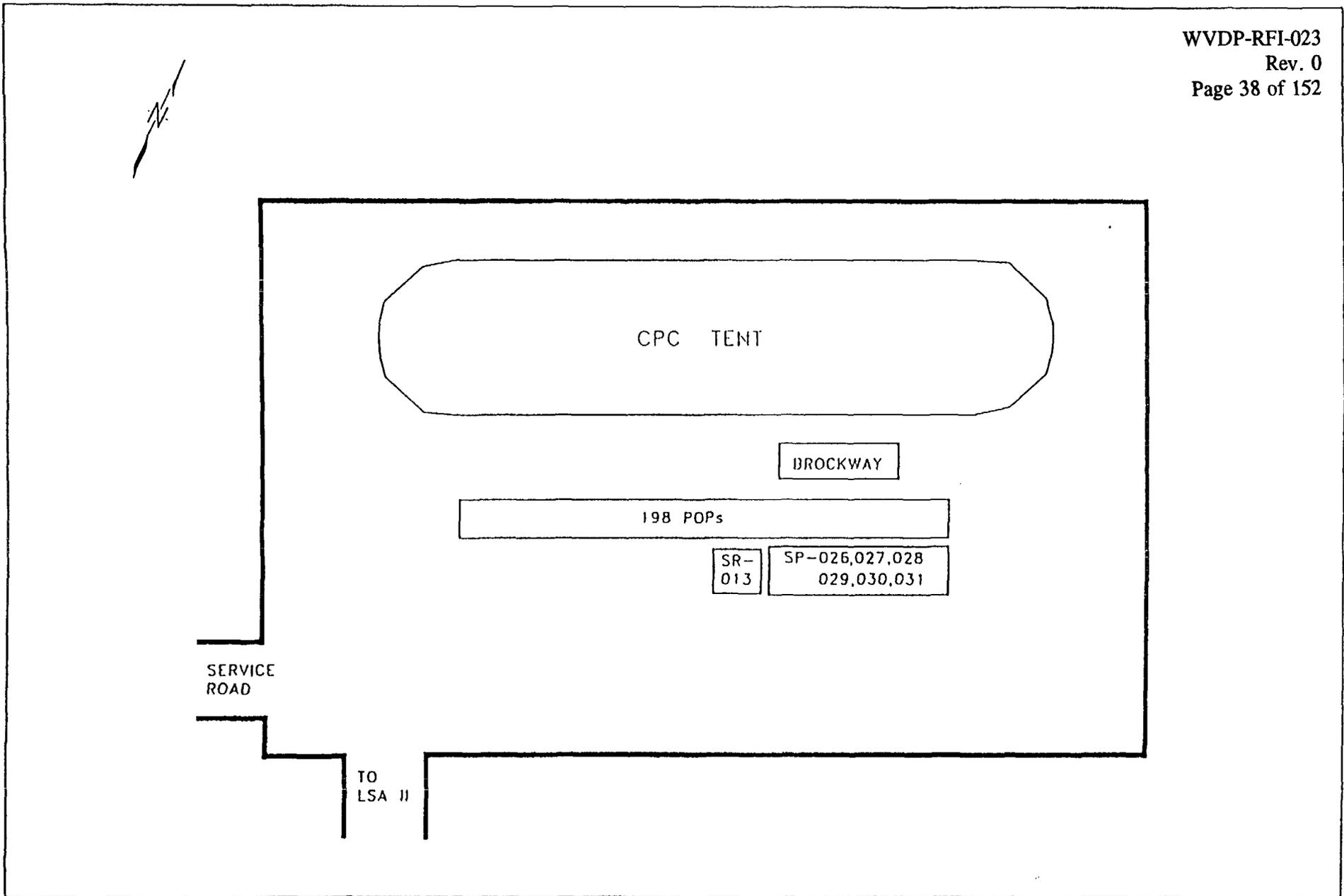


Figure 2-2. CPCWSA Tent Outside Storage Area

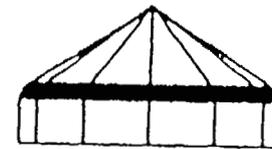
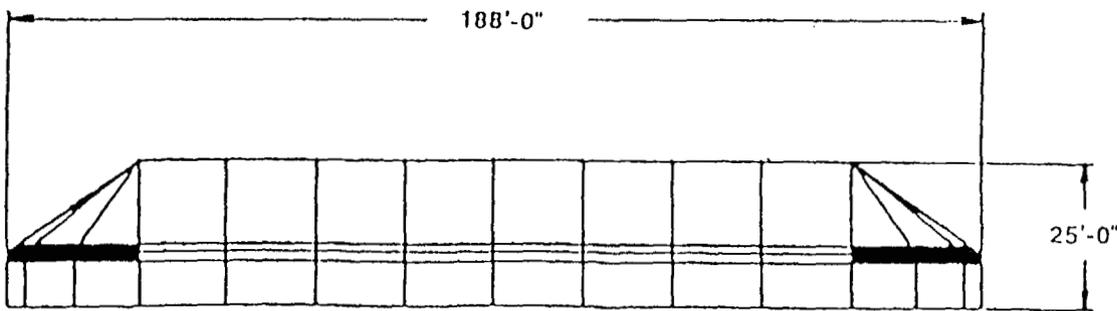
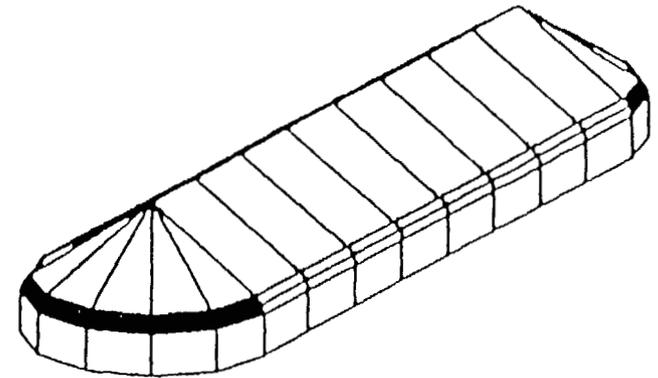
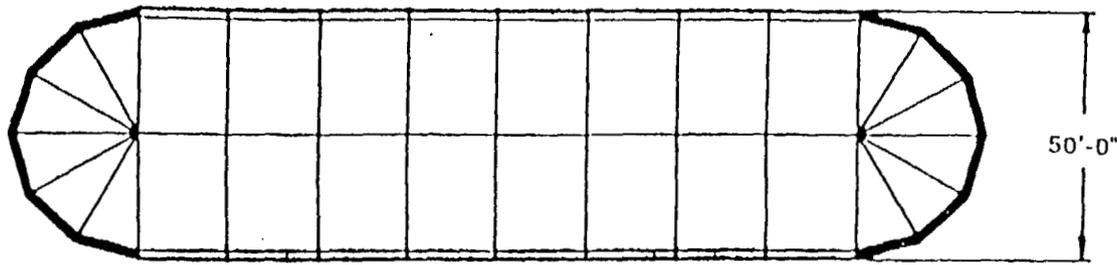


Figure 2-3. CPCWSA Tent Schematic

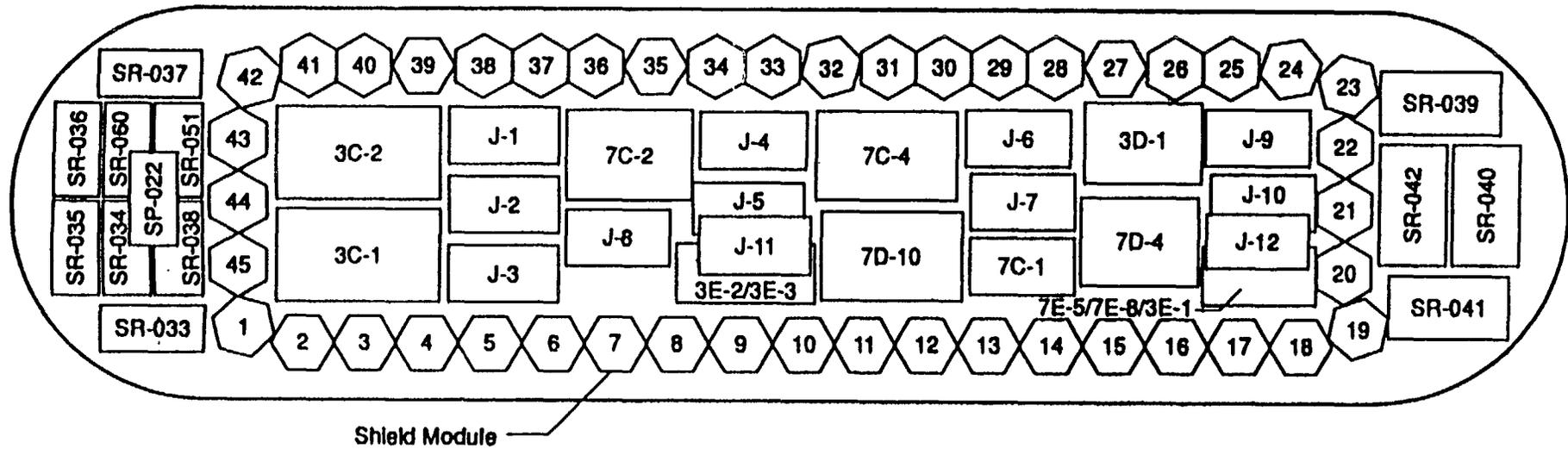


Figure 2-4. CPCWSA Waste Storage Layout

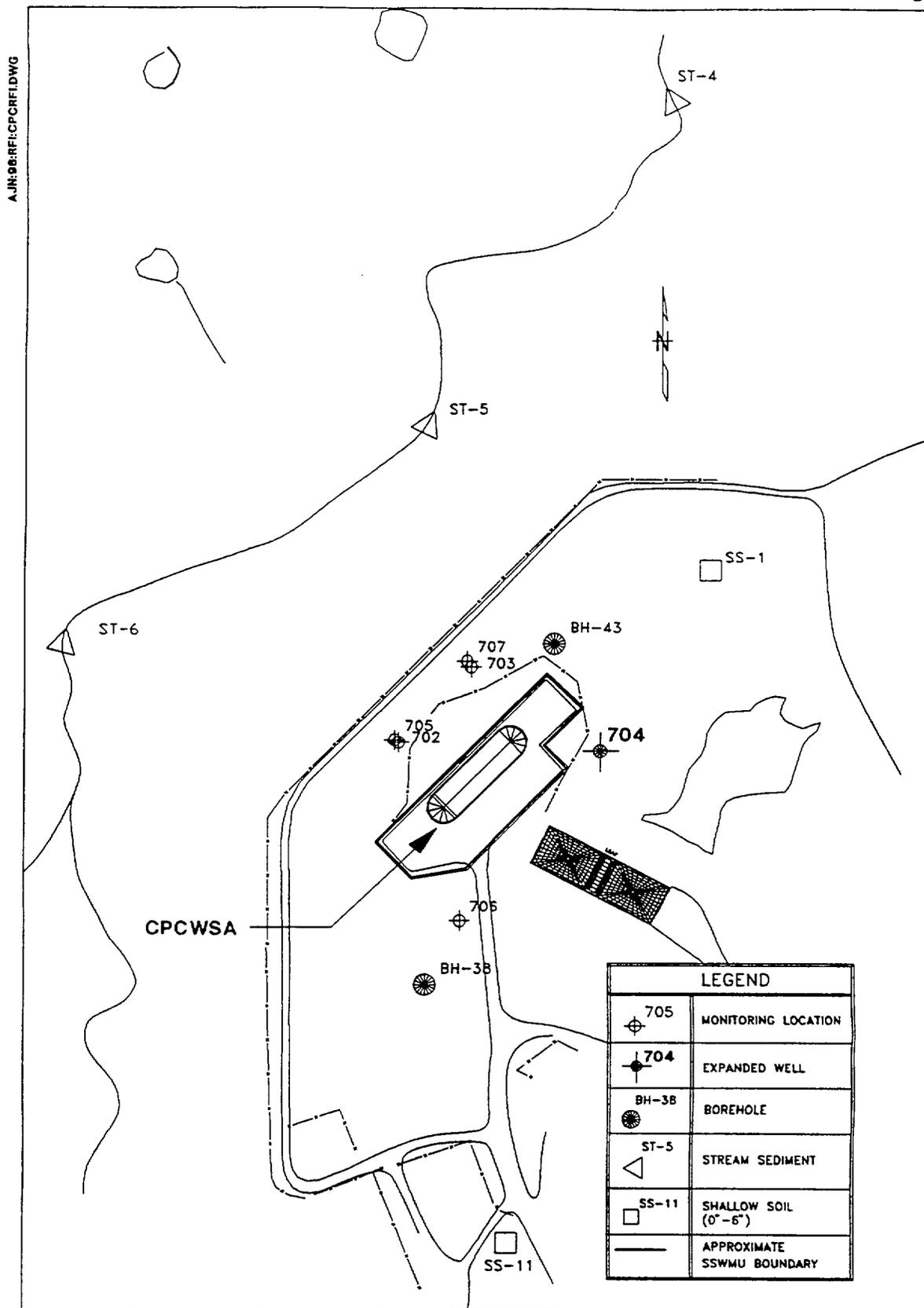
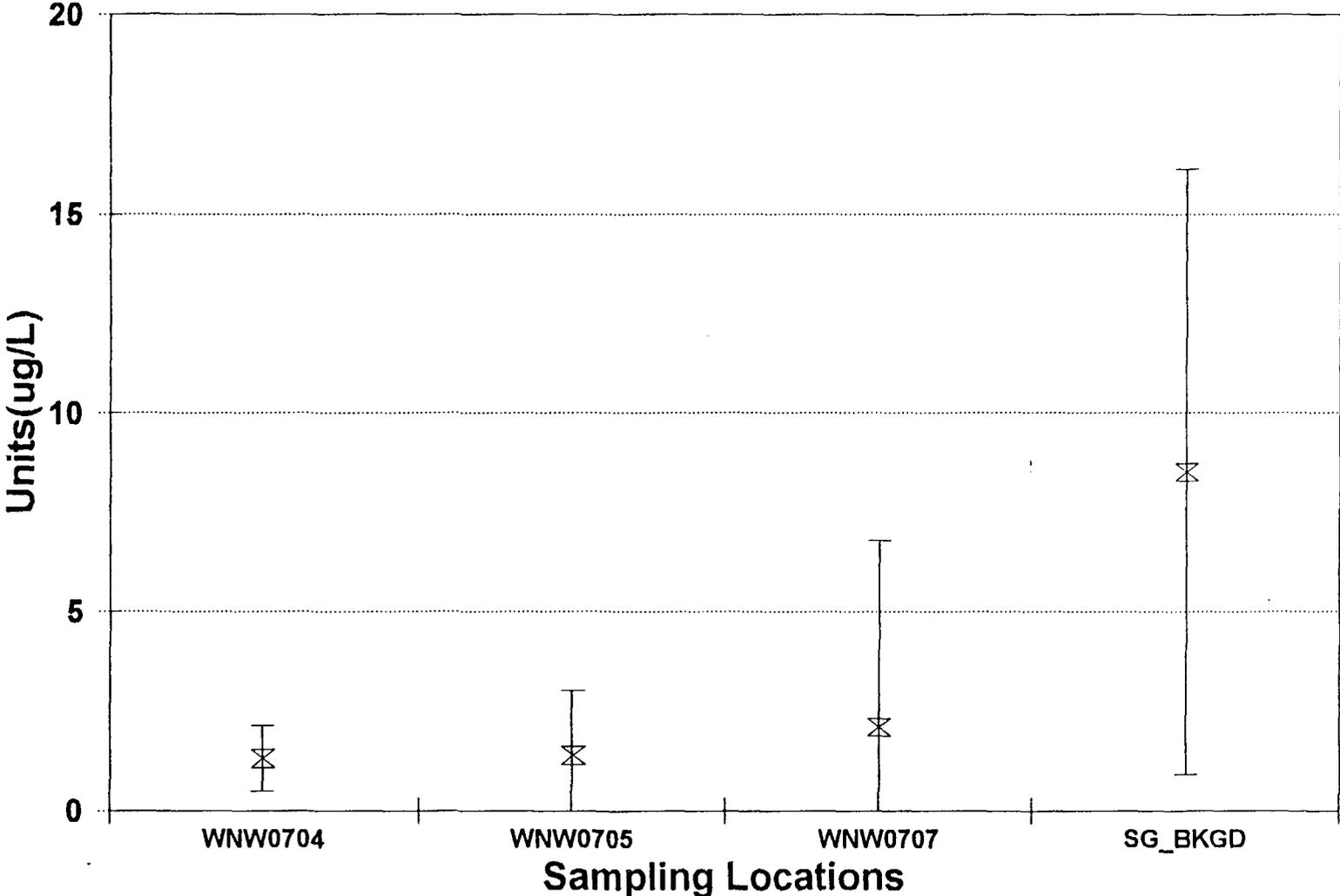


Figure 3-1. Groundwater, Soil, and Stream Sediment Sampling Locations at the CPCWSA

Figure 3-2

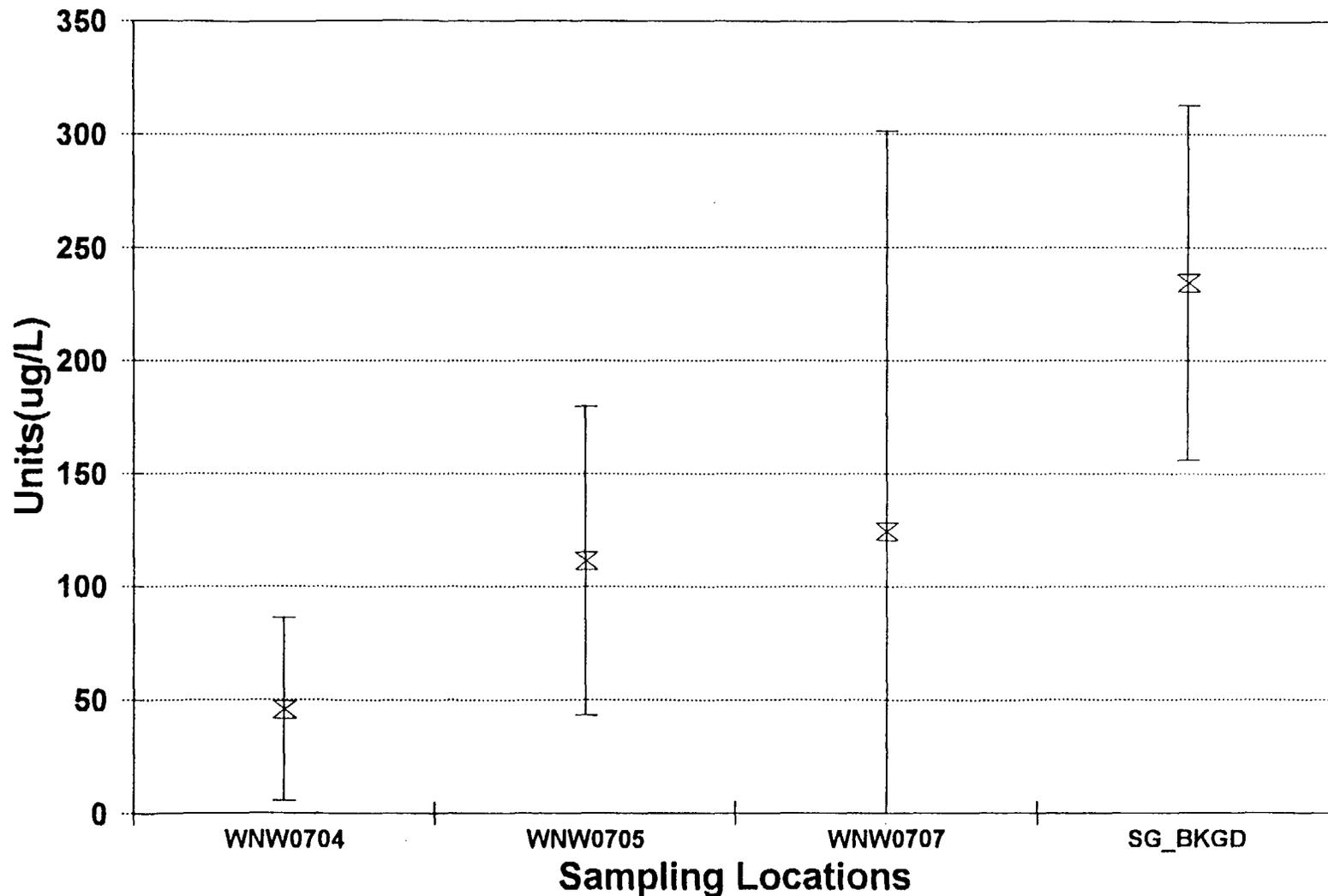
### Arsenic in the Sand and Gravel Unit 99% Confidence Intervals



Note: SG\_BKGD is combination of wells WNW0301, WNW0401, and WNW0706

Figure 3-3

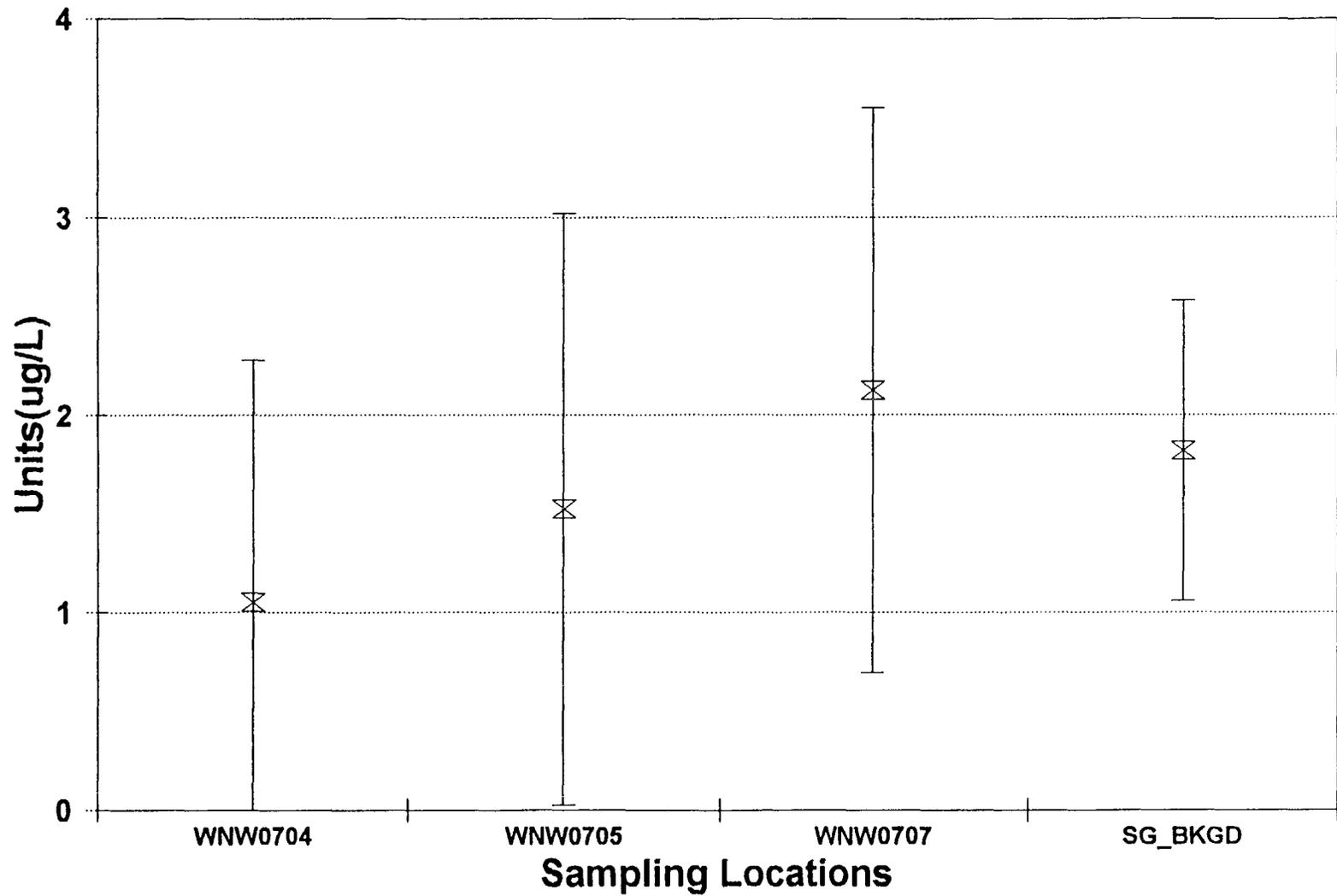
### Barium in the Sand and Gravel Unit 99% Confidence Intervals



Note: SG\_BKGD is combination of wells WNW0301, WNW0401, and WNW0706

Figure 3-4

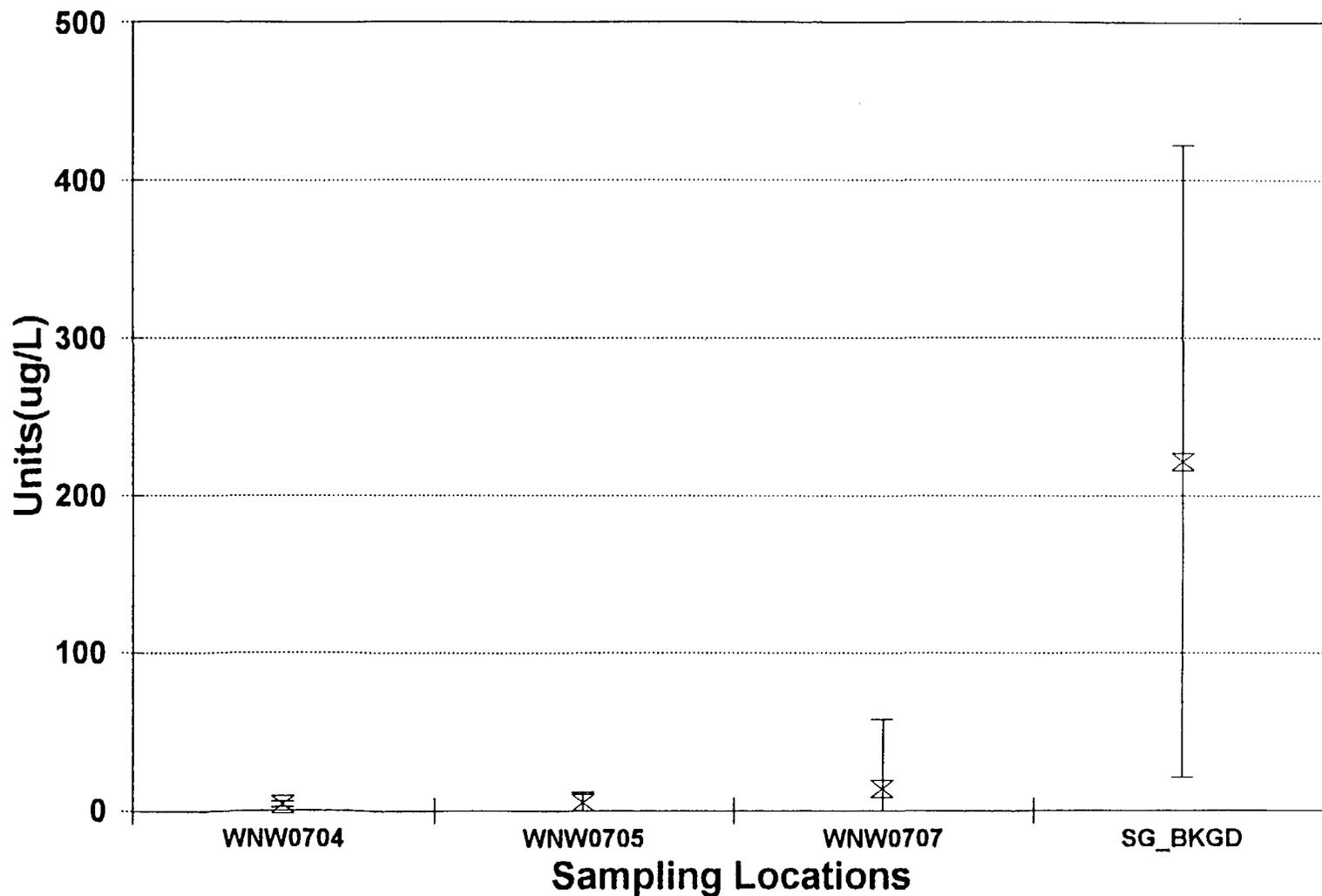
### Cadmium in the Sand and Gravel Unit 99% Confidence Intervals



Note: SG\_BKGD is combination of wells WNW0301, WNW0401, and WNW0706

Figure 3-5

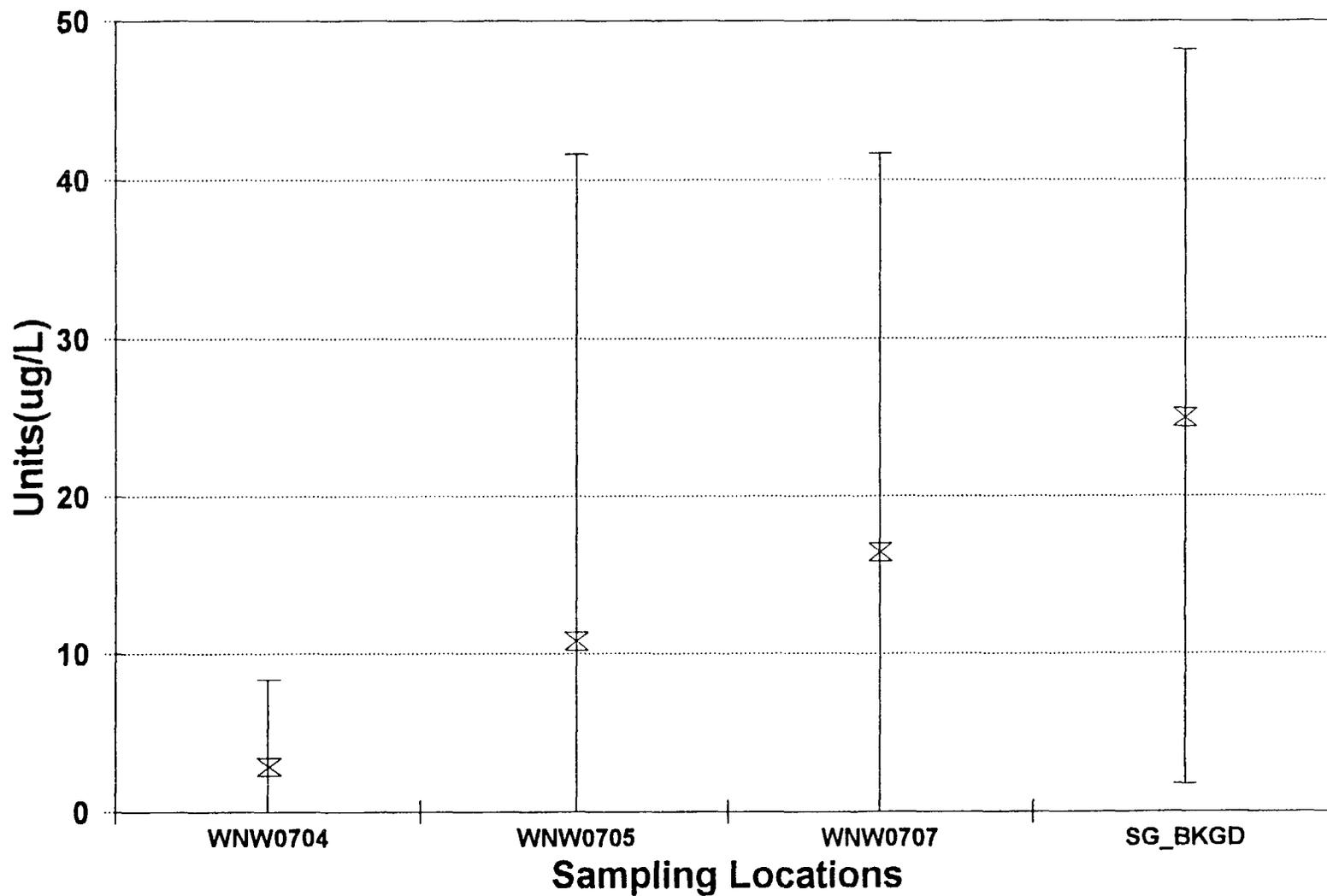
### Chromium in the Sand and Gravel Unit 99% Confidence Intervals



Note: SG\_BKGD is combination of wells WNW0301, WNW0401, and WNW0706

Figure 3-6

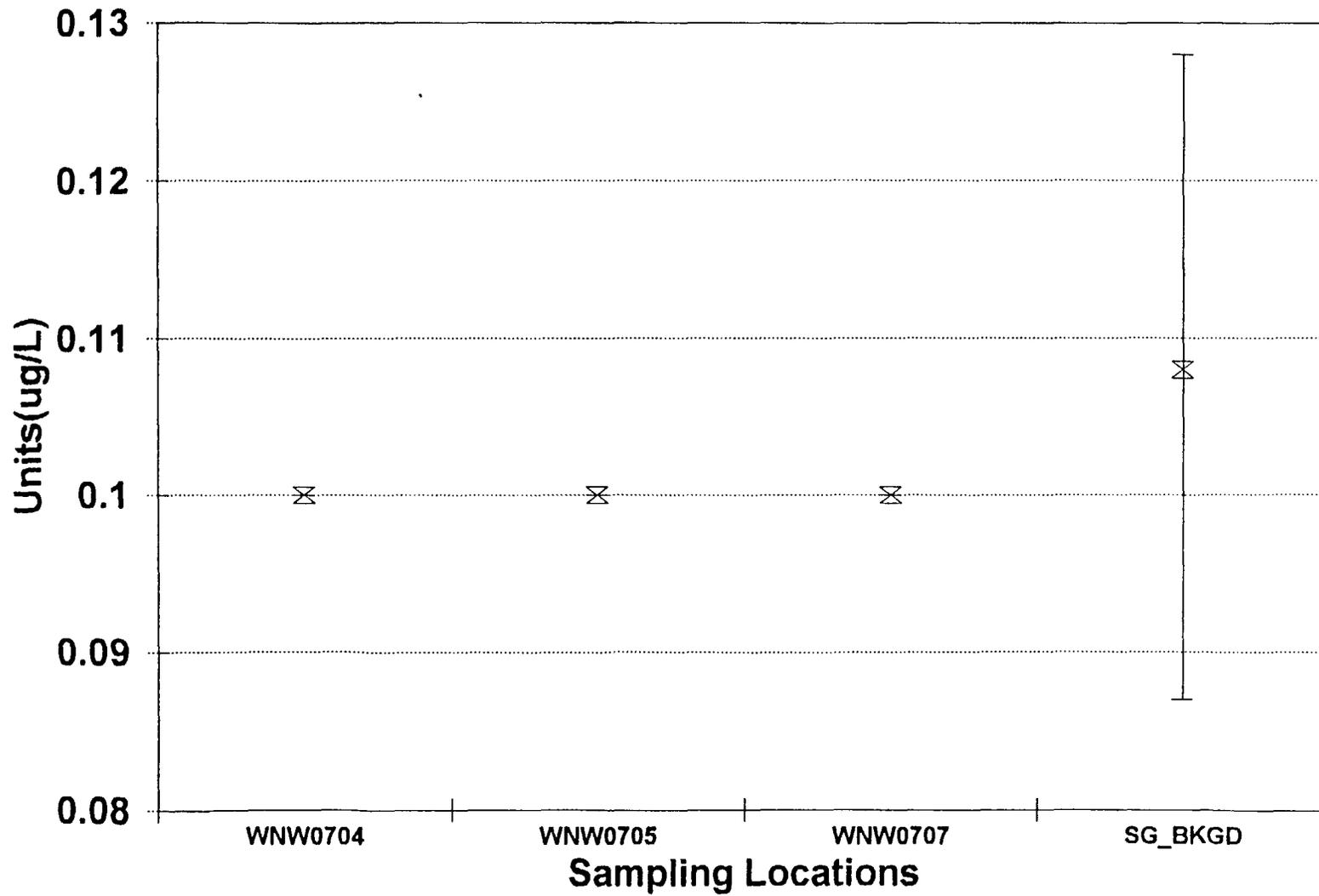
### Lead in the Sand and Gravel Unit 99% Confidence Intervals



Note: SG\_BKGD is combination of wells WNW0301, WNW0401, and WNW0706

Figure 3-7

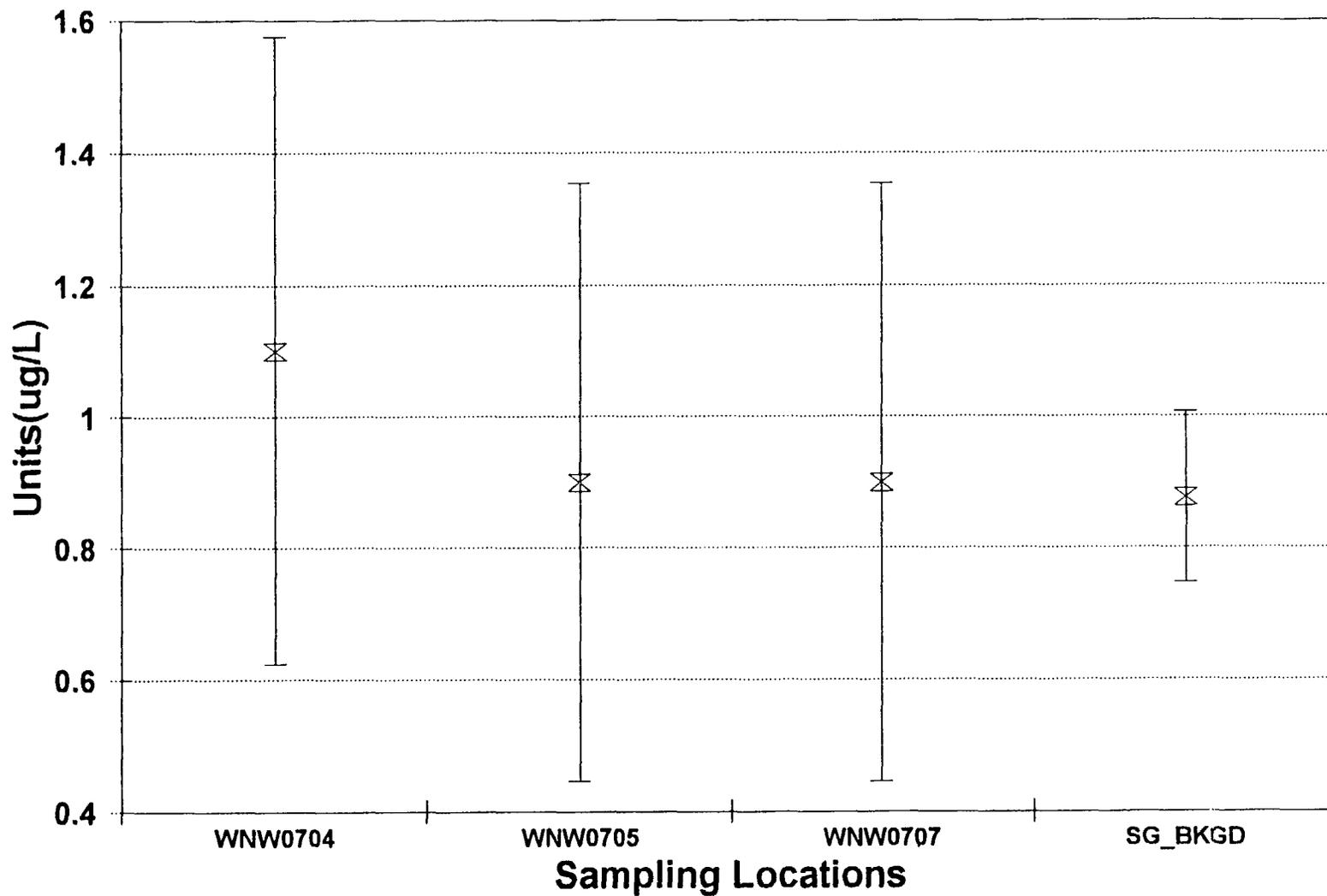
### Mercury in the Sand and Gravel Unit 99% Confidence Intervals



Note: SG\_BKGD is combination of wells WNW0301, WNW0401, and WNW0706

Figure 3-8

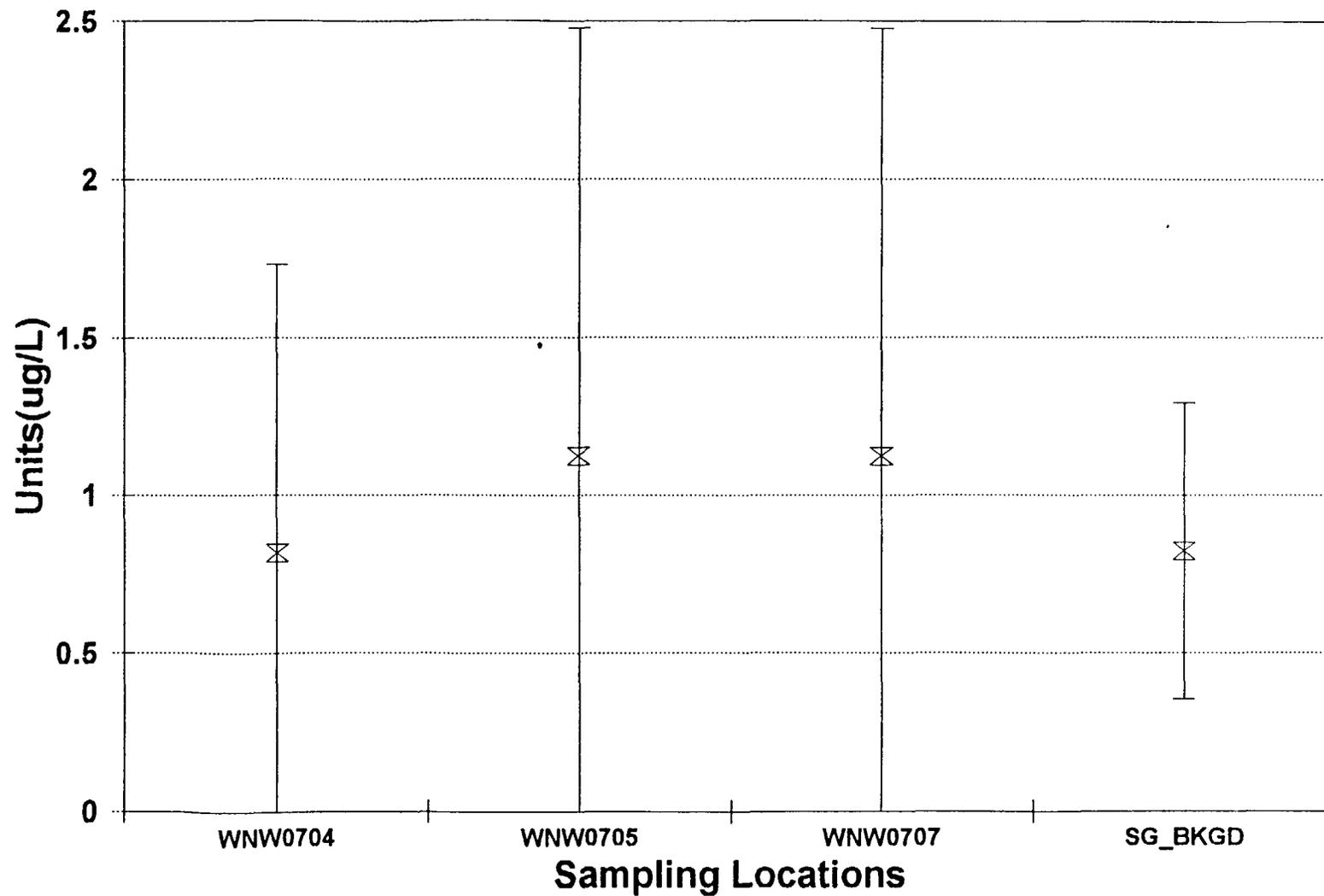
### Selenium in the Sand and Gravel Unit 99% Confidence Intervals



Note: SG\_BKGD is combination of wells WNW0301, WNW0401, and WNW0706

Figure 3-9

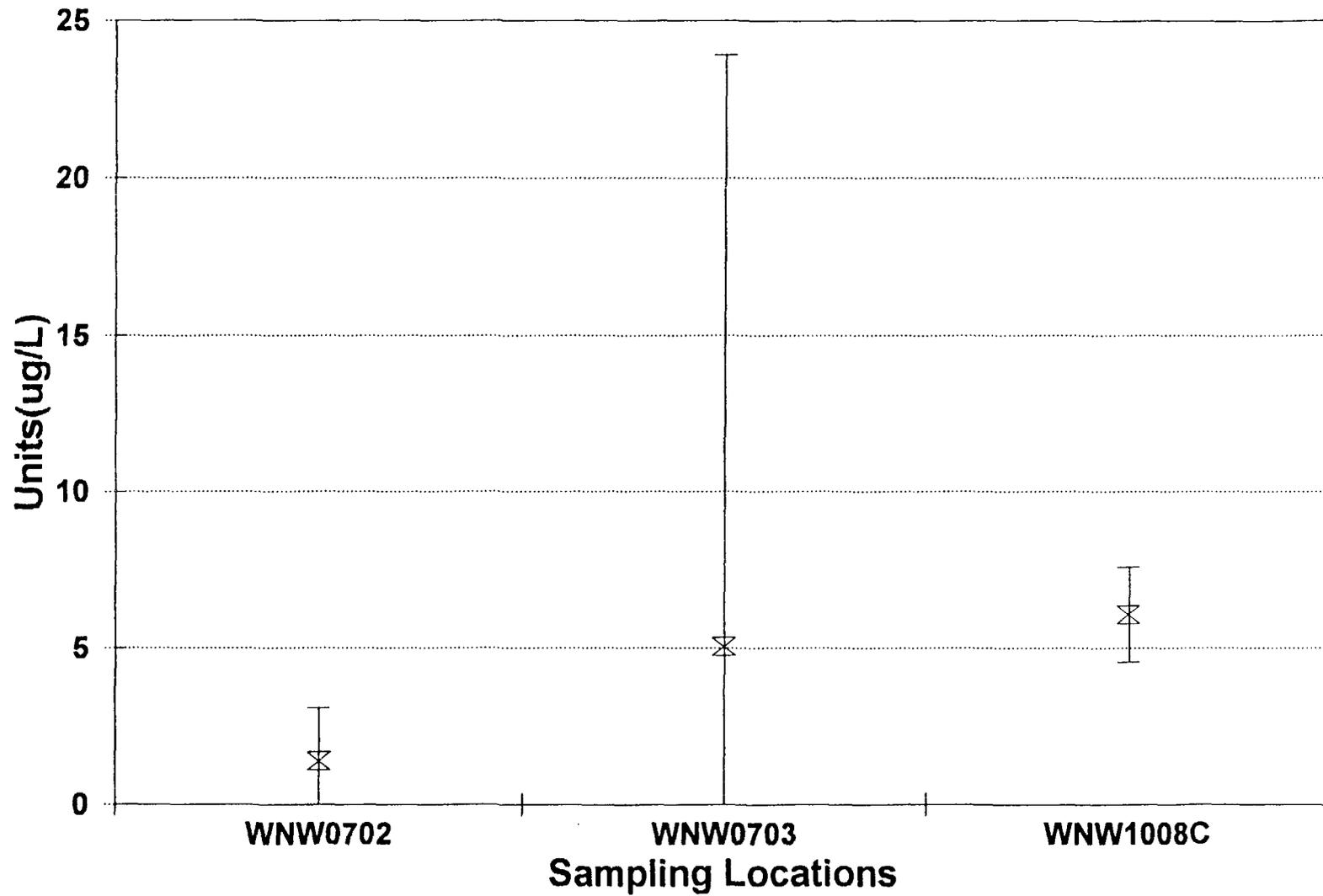
### Silver in the Sand and Gravel Unit 99% Confidence Intervals



Note: SG\_BKGD is combination of wells WNW0301, WNW0401, and WNW0706

Figure 3-10

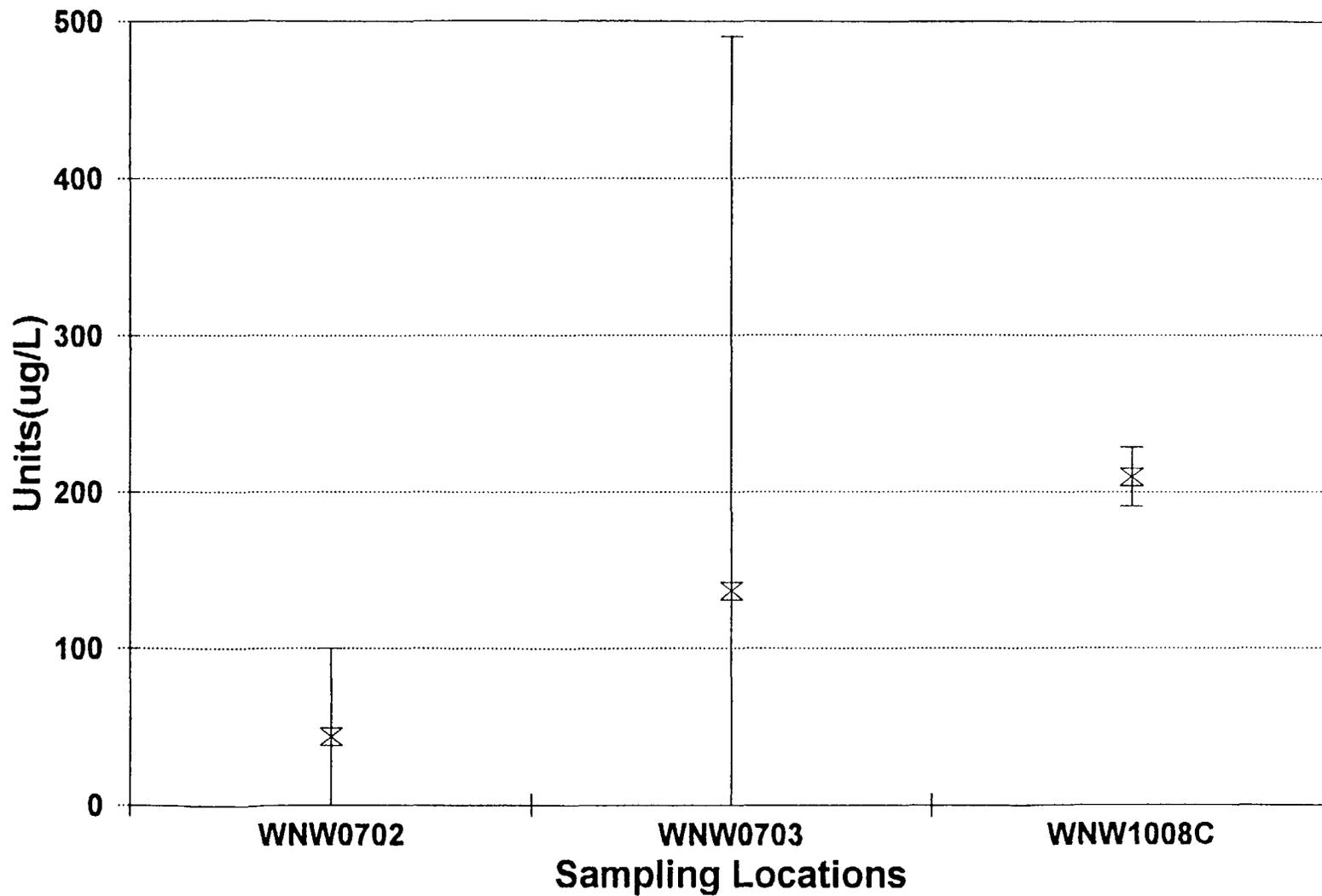
### Arsenic in the Lavery Till Unit 99% Confidence Intervals



Note: WNW1008C is background location

Figure 3-11

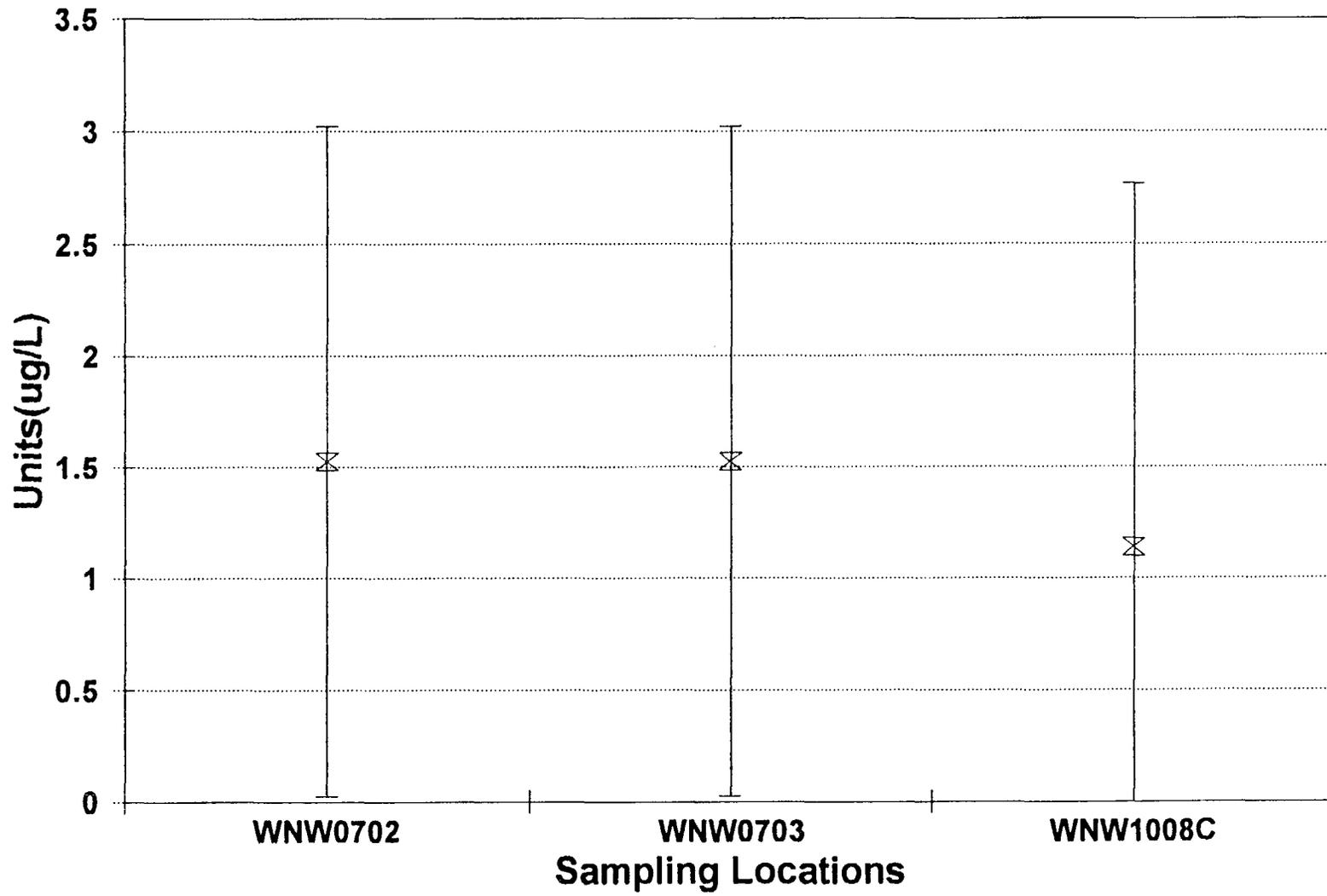
### Barium in the Lavery Till Unit 99% Confidence Intervals



Note: WNW1008C is background location

Figure 3-12

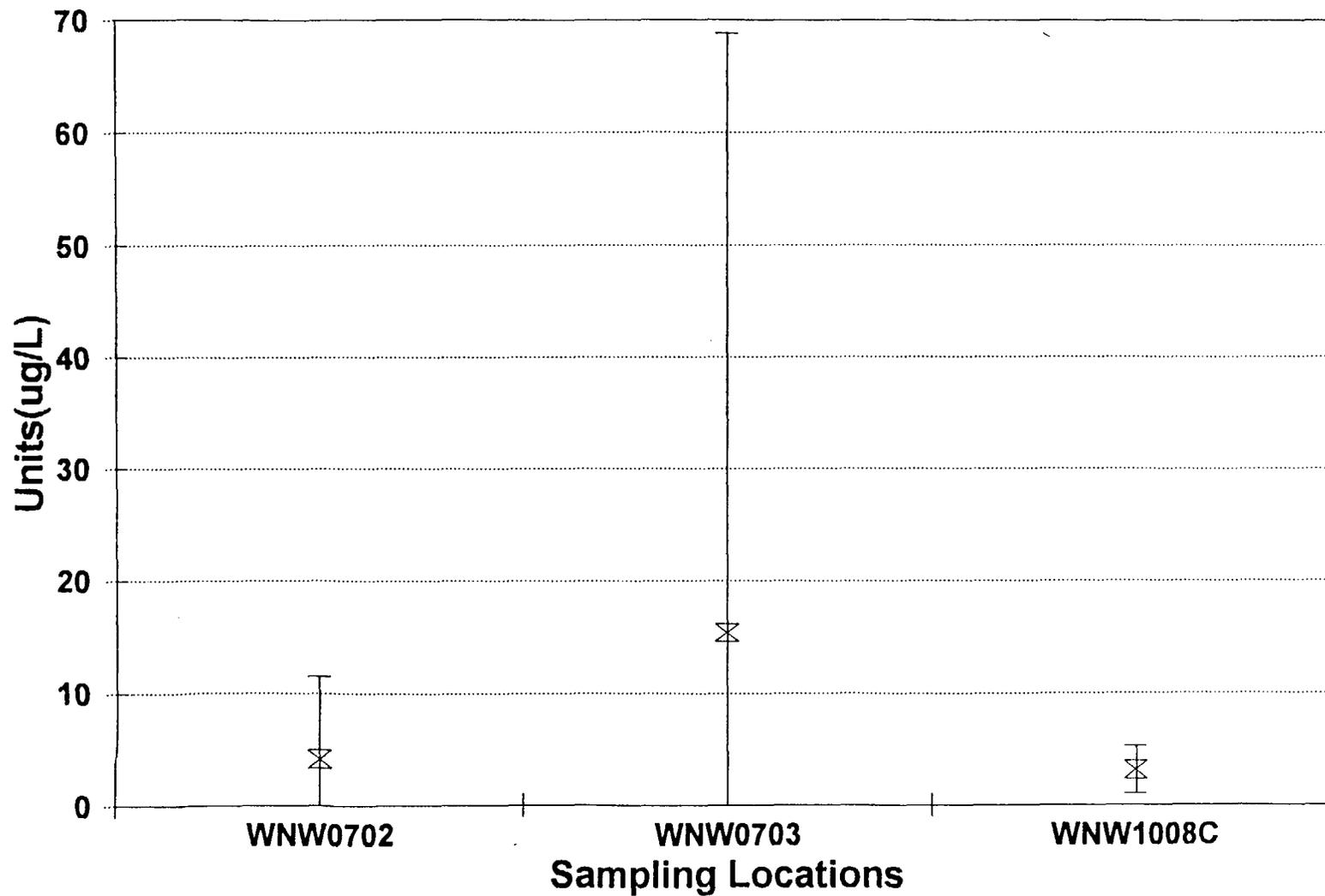
### Cadmium in the Lavery Till Unit 99% Confidence Intervals



Note: WNW1008C is background location

Figure 3-13

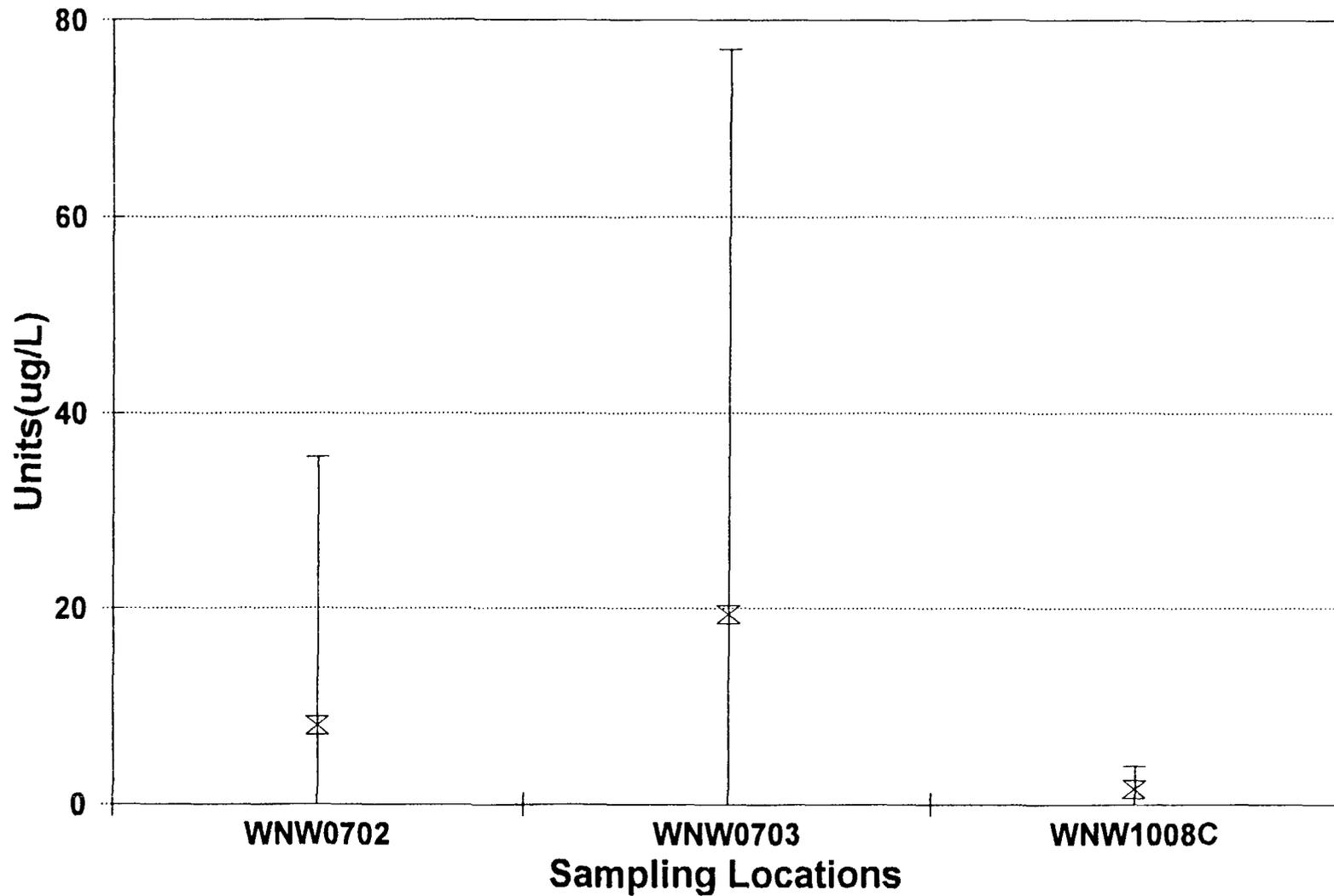
### Chromium in the Lavery Till Unit 99% Confidence Intervals



Note: WNW1008C is background location

Figure 3-14

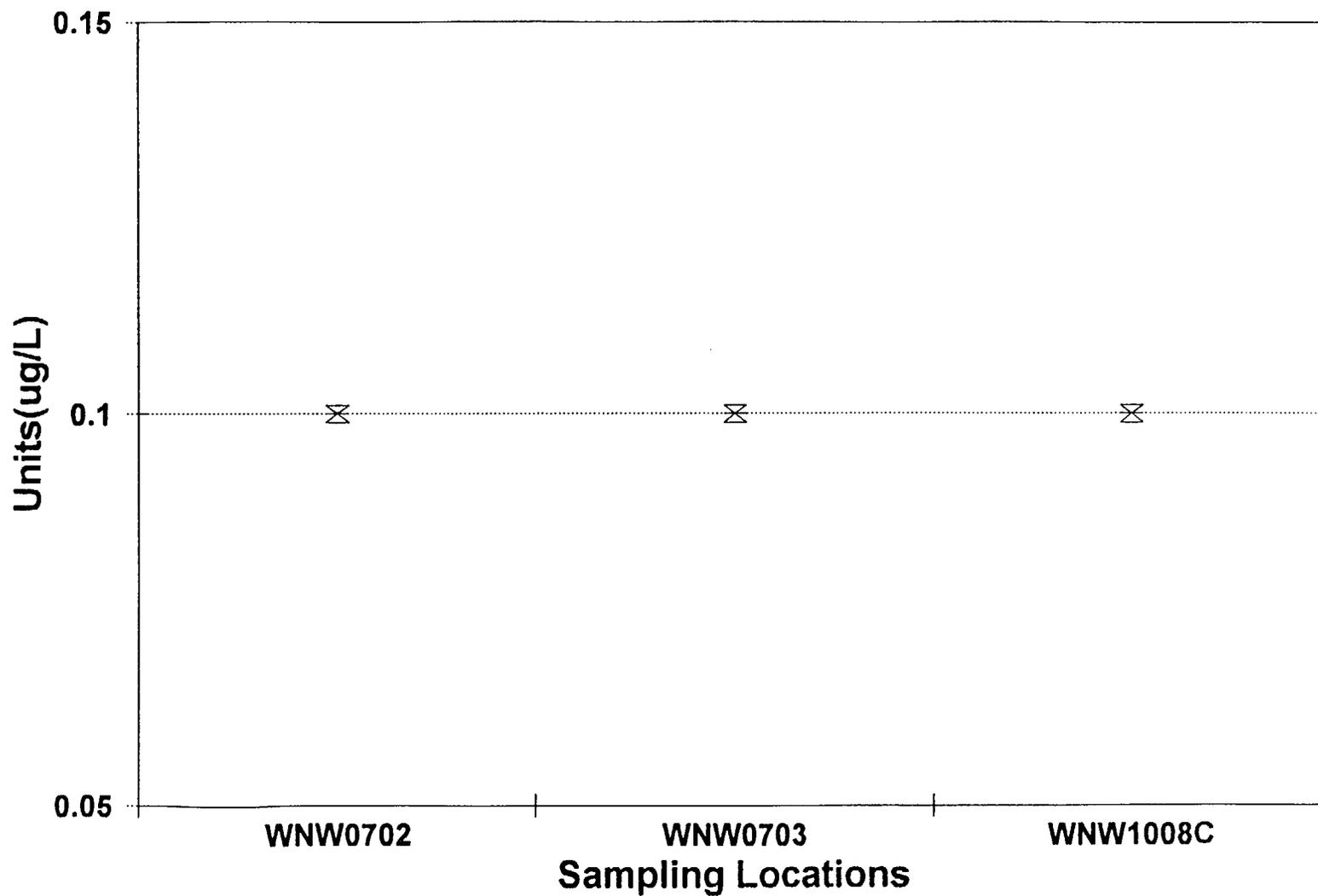
### Lead in the Lavery Till Unit 99% Confidence Intervals



Note: WNW1008C is background location

Figure 3-15

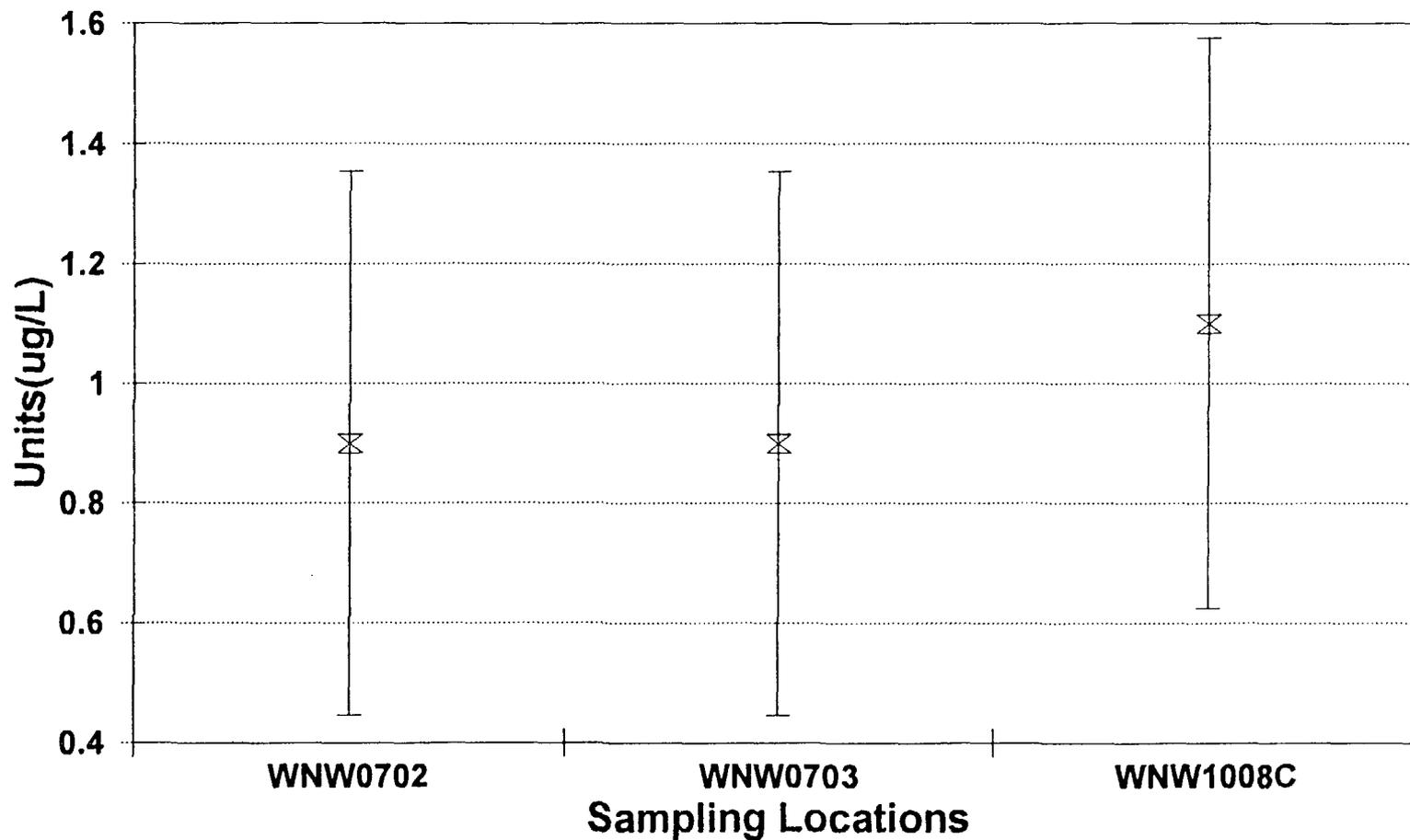
### Mercury in the Lavery Till Unit 99% Confidence Intervals



Note: WNW1008C is background location

Figure 3-16

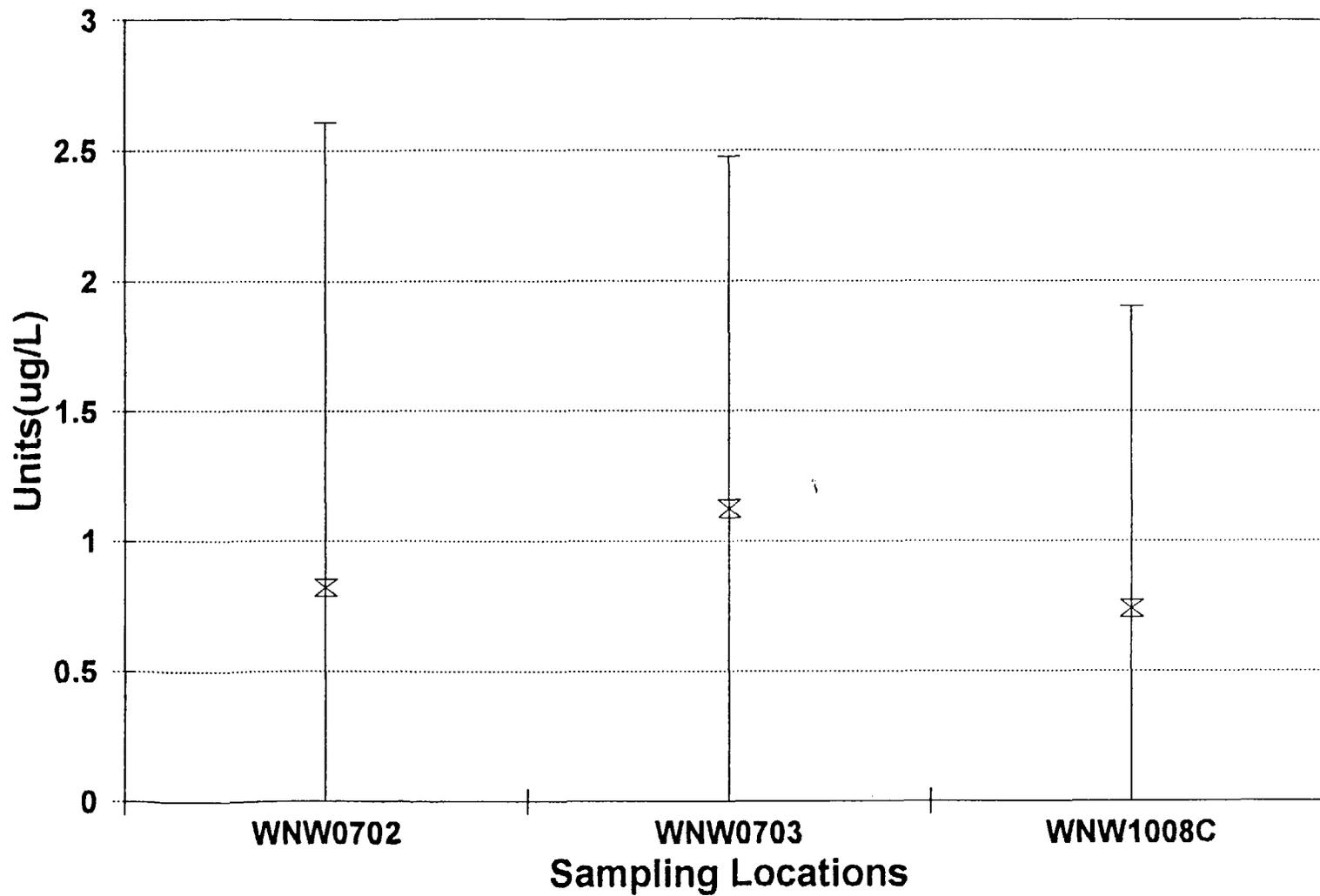
### Selenium in the Lavery Till Unit 99% Confidence Intervals



Note: WNW1008C is background location

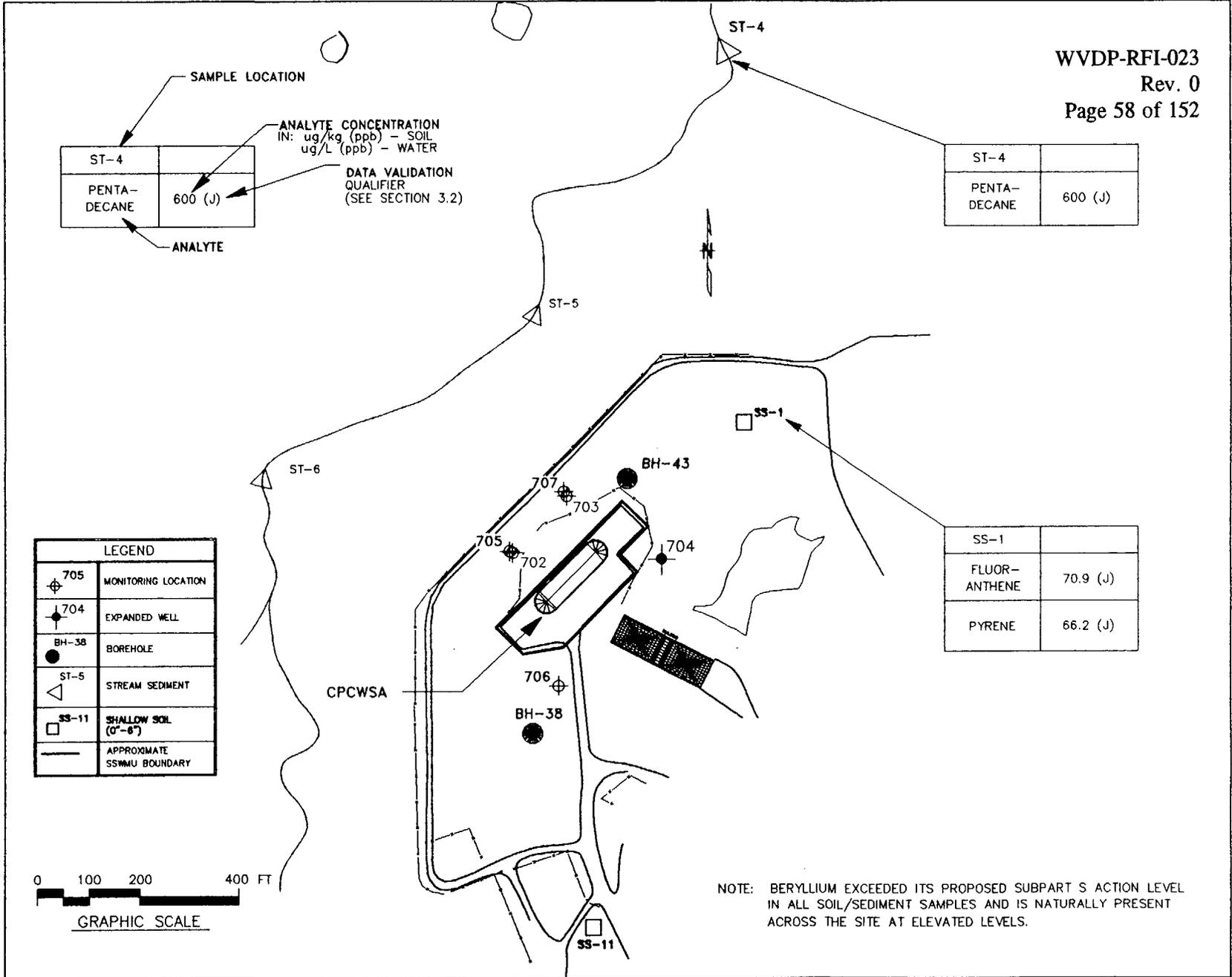
Figure 3-17

### Silver in the Lavery Till Unit 99% Confidence Intervals



Note: WNW1008C is background location

DLW:95:RFI:CPCALD.DWG



ST-4	
PENTA-DECANE	600 (J)

ST-4	
PENTA-DECANE	600 (J)

SS-1	
FLUOR-ANTHENE	70.9 (J)
PYRENE	66.2 (J)

Figure 3-18. CPCWSA RCRA Facility Investigation Sampling Locations and Analytical Results Summary

Appendix A

Nuclear Fuel Services Decontamination Solutions

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- o Water
- o Type 1 decontamination solution (1,000 liters):
  - 1) 500 liters of water heated to 150°F
  - 2) 200 liters of 18M sodium hydroxide (NaOH)
  - 3) 100 lbs of potassium permanganate ( $\text{KMnO}_4$ )
  - 4) 55 lbs of potassium dichromate ( $\text{KCr}_2\text{O}_7$ )
  - 5) water at temperatures of 180°F-200°F added to make a total of 1,000 liters
- o Type 2 decontamination solution (1,000 liters):
  - 1) 700 liters of water heated to 150°F
  - 2) 180 lbs of oxalic acid ( $\text{H}_2\text{C}_2\text{O}_4$ )
  - 3) 10 lbs of citric acid ( $\text{H}_3\text{C}_6\text{H}_5\text{O}_7$ )
  - 4) 10 lbs of tartaric acid ( $\text{H}_6\text{C}_6\text{O}_4$ )
  - 5) 8 lbs of sodium-nitrilotriacetate (NTA)  $\text{C}_6\text{H}_6\text{NO}_6 \cdot 3\text{Na}$
  - 6) water at temperatures of 150°F-170°F added to make a total of 1,000 liters
- o 0.8M aluminum nitrate [ $\text{Al}(\text{NO}_3)_3$ ] decontamination solution (1,000 liters):
  - 1) 700 liters of water
  - 2) 675 lbs of aluminum nitrate [ $\text{Al}(\text{NO}_3)_3$ ]
  - 3) water added to make a total of 1,000 liters
- o 2.0M nitric acid ( $\text{HNO}_3$ ) and 0.05M ammonium fluoride ( $\text{NH}_4\text{F}$ ) decontamination solution (1,000 liters):
  - 1) 870 liters of water
  - 2) 4 lbs of ammonium fluoride ( $\text{NH}_4\text{F}$ )
  - 3) 130 liters of 15M nitric acid ( $\text{HNO}_3$ )
- o Sodium tartrate decontamination solution (1,000 liters):
  - 1) 880 liters water
  - 2) 120 liters of 18M sodium hydroxide (NaOH)
  - 3) 20 kgs of tartaric acid ( $\text{H}_6\text{C}_6\text{O}_4$ ), heated to 150°F-170°F
- o Citric acid/nitric acid decontamination solution (1,000 liters):
  - 1) 800 liters of water heated to 150°F
  - 2) 108.5 liters of citric acid ( $\text{H}_3\text{C}_6\text{H}_5\text{O}_7$ )
  - 3) 19.3 liters of 15M nitric acid ( $\text{HNO}_3$ )

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**Appendix B**

**Monitoring Well Boring Logs and Construction Diagrams**

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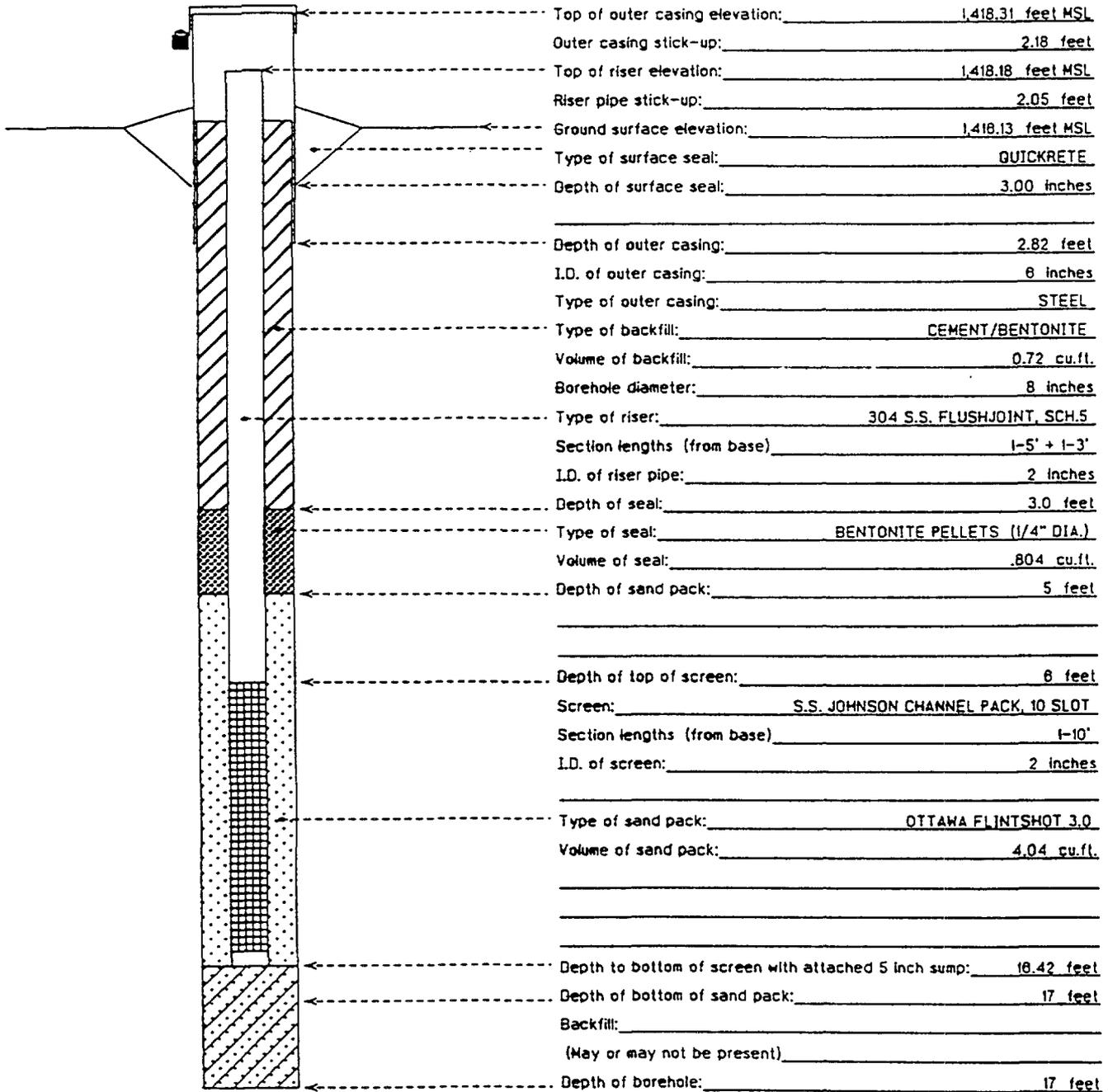
SHEET 1 OF: 1	<h1>BORING LOG</h1> <h2>DAMES &amp; MOORE</h2>	HOLE/WELL NO.: 0301	
DATE STARTED: 12/12/89		SURFACE ELEVATION: 1,416.13	
DATE FINISHED: 12/13/89			
DRILLER: Empire Soils Inv. Hamburg, New York		NORTHING 892,558.93	
INSPECTOR: JTB	EASTING 480,551.54		
PROJECT: WVDP DOE/RCRA wells	LOCATION: SW OF CSS		
JOB NUMBER: 10805-410-023	SSWMU Locale: 3		

DEPTH IN FEET	INCHES DRIVEN / RECOVERED	SAMPLE TYPE-NO.	BLOWS ON SAMPLER		LITHOLOGY	DESCRIPTION / NOTES
			0 / 6	6 / 12		
			12 / 18	18 / 24		
					LITHOLOGY	
					LITHOLOGY	Moist, brown, SILT, some fine to medium subangular gravel, little sand, trace clay, orange and green mottling. (GM)
5					LITHOLOGY	Moist, light to dark brown, silty SAND and fine to coarse GRAVEL, trace clay. (GM) Saturated, brown. (GM)
	24/8	SS-1	16	16	LITHOLOGY	Saturated, brown, fine to coarse subangular GRAVEL, little fine to coarse sand, trace silt. (GM)
10			15	13	LITHOLOGY	Some silt. (GM/ML)
					LITHOLOGY	Saturated, brown, silty SAND and fine to coarse GRAVEL, little subangular shale fragments. (GP/ML)
15	24/6	SS-2	11	200	LITHOLOGY	Saturated, brown, fine to coarse subangular GRAVEL and fine to medium SAND, little silt. (GW) Two-inch fossil fragment in end of spoon (brachiopod).
					LITHOLOGY	Saturated, brown, SILT, little fine sand, trace clay and fine subangular gravel. Weathered till. (ML)
20					LITHOLOGY	Augered to 17.0 ft. Sampled 8-10 ft. and 14-16 ft. See log 0302 for complete sampling details. The water level at completion of well installation was 8.75 ft. b.g.s.. No radiation detected above background by R/S.
25					LITHOLOGY	
30					LITHOLOGY	
35					LITHOLOGY	

CLASSIFICATION: VISUAL (Modified Burmister),USCS

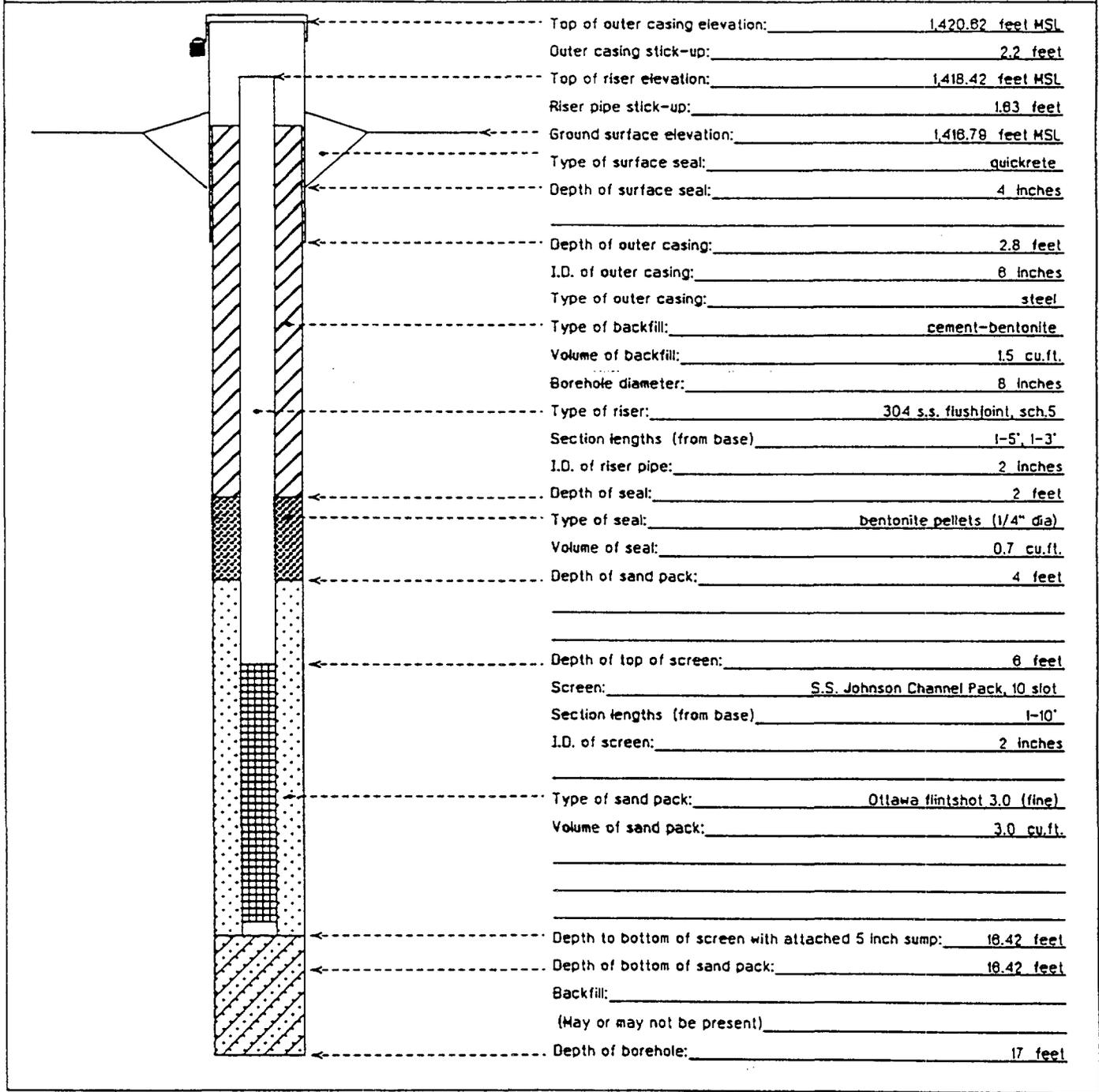
METHOD OF SAMPLING: ASTM D1586-84  
 SEE 0302 FOR COMPLETE DESCRIPTION

SHEET 1 OF 1		Dames & Moore Overburden Well Construction	HOLE/WELL NO.:	0301
DATE STARTED:	12/12/89		SURFACE ELEVATION:	1,418.13
DATE FINISHED:	12/13/89		NORTHING:	892,558.93
DRILLER:	Empire Soils Inv. Hamburg, New York		EASTING:	480,551.54
FIELD GEOLOGIST:	JTB		LOCATION:	SW OF CSS
PROJECT:	WVDP DOE/RCRA wells	SSWU Locale:	3	
JOB NUMBER:	10805-410-023			





SHEET 1 OF 1		<b>Dames &amp; Moore</b> <b>Overburden</b> <b>Well Construction</b>	HOLE/WELL NO.: 0401
DATE STARTED: 11/8/89			SURFACE ELEVATION: 1,418.79
DATE FINISHED: 11/8/89			NORTHING: 892,874.32
DRILLER: Empire Soils Inv. Hamburg, New York			EASTING: 480,501.55
FIELD GEOLOGIST: FJC			LOCATION: EAST OF TRAILER J
PROJECT: WVDP DOE/RCRA wells			SSHMU Locale: 4
JOB NUMBER: 10805-410-023			



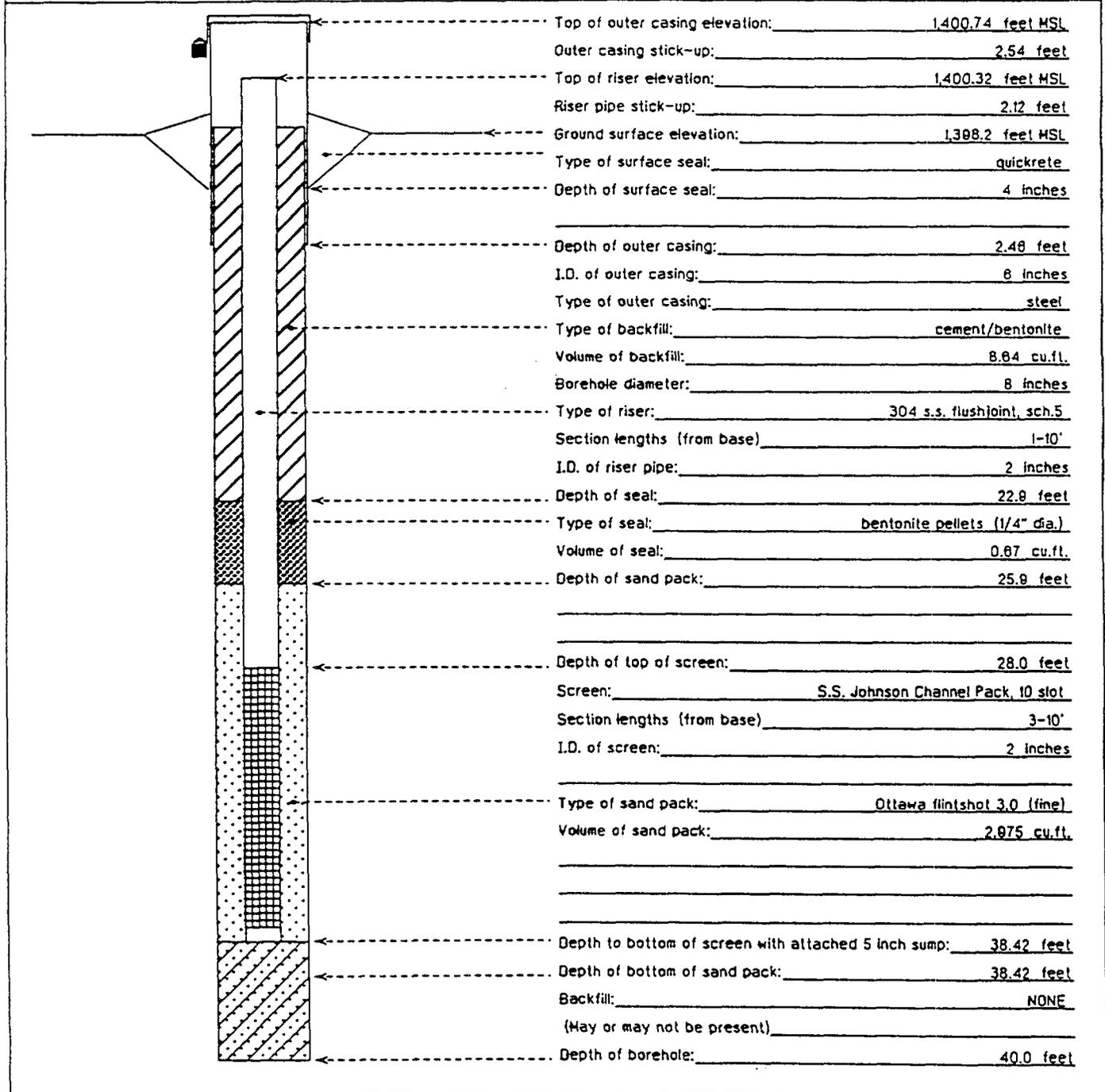
SHEET 1 OF: 1 DATE STARTED: 12/1/89 DATE FINISHED: 12/5/89 DRILLER: Empire Soils Inv. Hamburg, New York INSPECTOR: FJC	<h1 style="margin:0;">BORING LOG</h1> <h2 style="margin:0;">DAMES &amp; MOORE</h2>	HOLE/WELL NO.: 0702 SURFACE ELEVATION: 1,398.2 NORTHING 893,741.87 EASTING 480,154.25 PROJECT: WVDP DOE/RCRA wells JOB NUMBER: 10805-410-023 LOCATION: W. CPC STORAGE AREA SSWMU Locale: 7
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DEPTH IN FEET	INCHES DRIVEN / RECOVERED	SAMPLE TYPE-NO.	BLOWS ON SAMPLER				LITHOLOGY	DESCRIPTION / NOTES
			0 / 6		6 / 12			
			12 / 18	18 / 24	12 / 18	18 / 24		
	24/15	SS-1	4	17	[Diagonal Hatching]	[Dotted Pattern]	Derk brown, organic, TOPSOIL. (OL)	
			12	13			Damp, medium brown, SILT, little fine to medium gravel, little sand, trace clay. (SM)	
5	24/4	SS-2	20	27	[Diagonal Hatching]	[Dotted Pattern]	Damp, medium brown, silty SAND and coarse GRAVEL, trace clay. (GM)	
			7	7			Moist, medium brown, SILT. (ML)	
	24/21	SS-3	10	10	[Diagonal Hatching]	[Dotted Pattern]	Moist, brownish-gray, SILT and CLAY, trace sand. (CL)	
			8	10			Damp to moist, dark gray, CLAY and SILT, trace fine to medium gravel, trace medium to coarse sand. (CL)	
10	24/18	SS-4	8	9	[Diagonal Hatching]	[Dotted Pattern]		
			9	11				
	24/22	SS-5	7	7	[Diagonal Hatching]	[Dotted Pattern]		
			12	12				
15	24/18	SS-6	9	10	[Diagonal Hatching]	[Dotted Pattern]		
			13	14				
	24/22	SS-7	4	6	[Diagonal Hatching]	[Dotted Pattern]		
			12	13				
20	24/15	SS-8	2	4	[Diagonal Hatching]	[Dotted Pattern]		
			8	7				
	24/17	SS-9	8	9	[Diagonal Hatching]	[Dotted Pattern]	Damp to moist, dark gray, CLAY and SILT, trace fine to medium gravel, trace medium to coarse sand. (CL)	
			12	14				
25	24/20	SS-10	6	8	[Diagonal Hatching]	[Dotted Pattern]		
			10	11				
	24/22	SS-11	3	7	[Diagonal Hatching]	[Dotted Pattern]		
			9	11				
30	24/24	SS-12	9	9	[Diagonal Hatching]	[Dotted Pattern]		
			10	13				
	24/23	SS-13	6	6	[Diagonal Hatching]	[Dotted Pattern]	Moist, dark gray, SILT and CLAY, trace fine to medium subangular gravel, trace very fine sand. (CL)	
			9	12				
35	24/24	SS-14	4	6	[Diagonal Hatching]	[Dotted Pattern]		
			8	7				
	24/15	SS-15	5	5	[Diagonal Hatching]	[Dotted Pattern]	Trace shale fragments.	
			13	17				
40	24/14	SS-16	12	9	[Diagonal Hatching]	[Dotted Pattern]	Moist, dark gray, SILT and CLAY, little coarse gravel (shale), trace sand. (CL)	
			11	73				
	24/24	SS-17	30	12	[Diagonal Hatching]	[Dotted Pattern]		
			11	14				
45	24/17	SS-18	3	5	[Diagonal Hatching]	[Dotted Pattern]		
			6	9				
	24/14	SS-19	4	5	[Diagonal Hatching]	[Dotted Pattern]	AUGERED TO 38.0 FT. SAMPLED TO 40.0 FT. THE WATER LEVEL WAS MEASURED AT 36.2 FT. B.G.S.- WHILE THE BOTTOM OF THE AUGERS WERE 38.0 FT. B.G.S.. NO RADIATION WAS DETECTED ABOVE BACKGROUND BY R/S	
			6	7				
	24/18	SS-20	1	3	[Diagonal Hatching]	[Dotted Pattern]		
			5	6	[Diagonal Hatching]	[Dotted Pattern]		

CLASSIFICATION: VISUAL (Modified Burmister),USCS

METHOD OF SAMPLING: ASTM D1586-84

SHEET 1 OF 1 DATE STARTED: 12/1/89 DATE FINISHED: 12/5/89 DRILLER: Empire Soils Inv. Hamburg, New York FIELD GEOLOGIST: FJC		<b>Dames &amp; Moore</b> Overburden Well Construction		HOLE/WELL NO.: 0702 SURFACE ELEVATION: 1398.2 NORTHING: 893,741.87 EASTING: 480,154.25
PROJECT: WVDP DOE/RCRA wells JOB NUMBER: 10805-410-023		LOCATION: W. CPC STORAGE AREA SSMU Locale: 7		

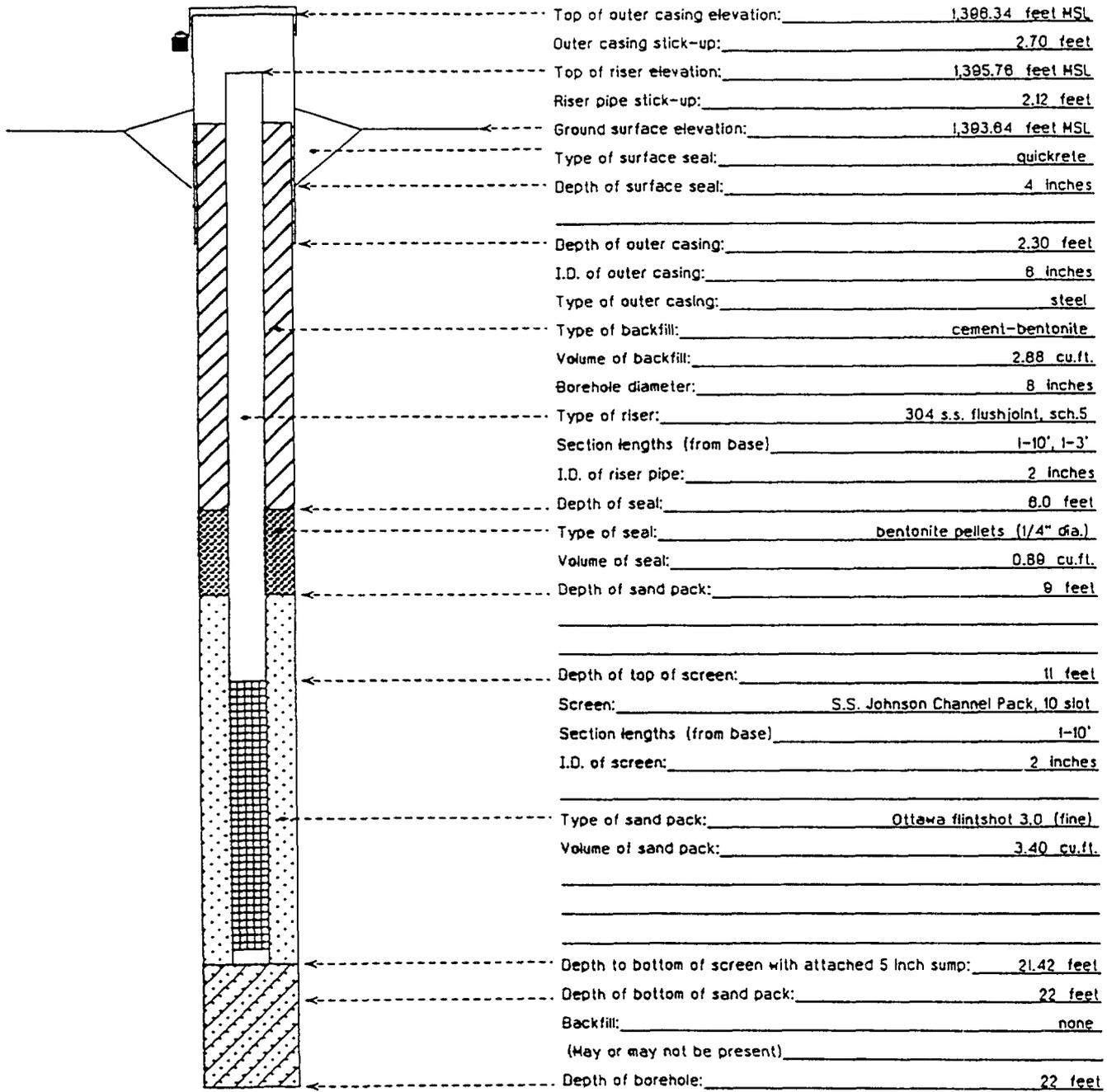


SHEET 1 OF: 1 DATE STARTED: 12/06/89 DATE FINISHED: 12/07/89 DRILLER: Empire Soils Inv. Hamburg, New York INSPECTOR: FJC	<h1 style="margin:0;">BORING LOG</h1> <h2 style="margin:0;">DAMES &amp; MOORE</h2>	HOLE/WELL NO.: 0703 SURFACE ELEVATION: 1,393.64 NORTHING 893,853.41 EASTING 480,261.17 LOCATION: NW. OF CPC STORAGE SSWMU Locale: 7
PROJECT: WVDP DOE/RCRA wells JOB NUMBER: 10805-410-023		LOCATION: NW. OF CPC STORAGE SSWMU Locale: 7

DEPTH IN FEET	INCHES DRIVEN / RECOVERED	SAMPLE TYPE-NO.	BLOWS ON SAMPLER				LITHOLOGY	DESCRIPTION / NOTES
			0 / 6	6 / 12				
			12 / 18	18 / 24				
5	24/11	SS-1	3	10			TOPSOIL and Fill GRAVEL. (OL)	
	24/24	SS-2	8	8			Moist, brown, SILT, some to little gravel, little fine to coarse sand, trace clay. (GM)	
			12	9				
	24/12	SS-3	10	13			Moist, reddish-brown, fine to coarse GRAVEL and SAND, little silt, trace clay, mottled. (GM)	
28			17					
10	24/17	SS-4	15	12			Wet, brown, SILT, some to little fine to medium gravel, trace very fine sand, trace clay. (ML/GM)	
			18	11				
	24/19	SS-5	10	15			Moist, brownish-gray, SILT, trace to little clay, trace fine to medium gravel, weathered, mottled. (ML/CL)	
			8	10				
	24/20	SS-6	15	25			Moist, gray, SILT, trace fine gravel, trace clay. (ML)	
			16	18				
24/8	SS-7	17	15			Saturated, brownish-gray, SILT, some clay, trace to little fine subangular to subrounded gravel, trace fine sand. (ML/CL)		
		15	14					
15	24/20	SS-8	4	7			Saturated, gray, silty CLAY, trace fine gravel, slightly plastic, stiff. (CL)	
			12	14				
	24/19	SS-9	5	8				
20	24/20	SS-10	10	13			Wet, gray, SILT, little clay, trace fine subangular gravel. (ML/CL)	
			5	5				
	24/16	SS-11	12	12				
25			2	4			AUGERED TO 20.0 FT. SAMPLED TO 22.0 FT. THE WATER LEVEL WAS MEASURED AT 4.7 FT.B.G.S.- WHILE THE BOTTOM OF THE AUGERS WERE 22.0 FT. B.G.S.. NO RADIATION DETECTED ABOVE BACKGROUND BY R/S	
			8	12				
30								
35								

CLASSIFICATION: VISUAL (Modified Burmister),USCS METHOD OF SAMPLING: ASTM D1586-84

SHEET 1 OF 1		Dames & Moore Overburden Well Construction	HOLE/WELL NO.:	0703
DATE STARTED:	12/08/89		SURFACE ELEVATION:	1,393.84
DATE FINISHED:	12/07/89		NORTHING:	893,853.41
DRILLER:	Empire Soils Inv. Hamburg, New York		EASTING:	480,261.17
FIELD GEOLOGIST:	FJC		LOCATION:	NW. OF CPC STORAGE
PROJECT:	WVDP DOE/RCRA wells	SSMU Locale:	7	
JOB NUMBER:	10805-410-023			



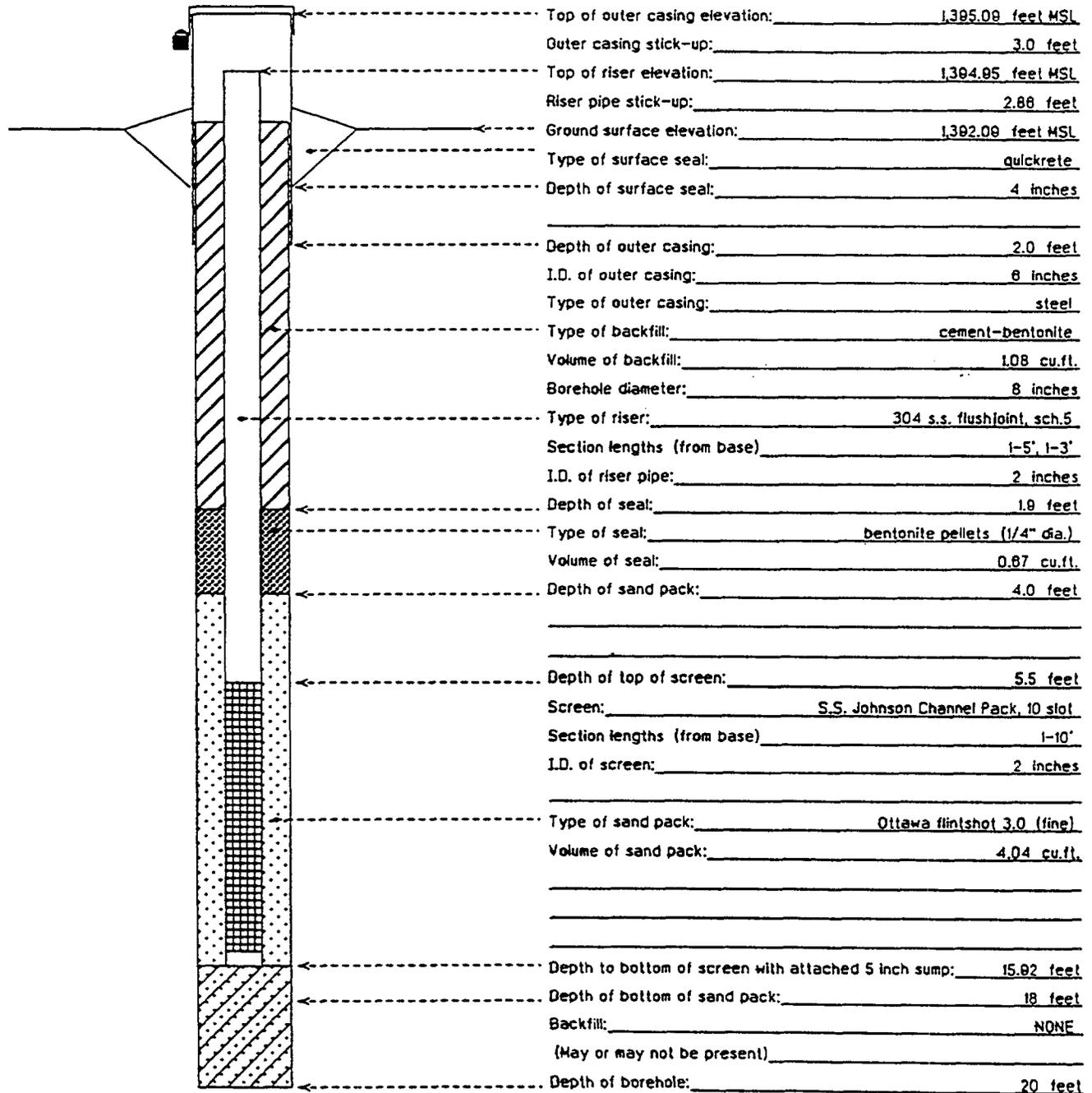
SHEET 1 OF: 1 DATE STARTED: 12/7/89 DATE FINISHED: 12/7/89 DRILLER: Empire Soils Inv. Hamburg, New York INSPECTOR: FJC	<h1 style="margin:0;">BORING LOG</h1> <h2 style="margin:0;">DAMES &amp; MOORE</h2>	HOLE/WELL NO.: 0704 SURFACE ELEVATION: 1,392.09 NORTHING 893,729.45 EASTING 480,452.19 PROJECT: WVDP DOE/RCRA wells JOB NUMBER: 10805-410 LOCATION: EAST OF CPC STORAGE SSWMU Locale: 7
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DEPTH IN FEET	INCHES DRIVEN / RECOVERED	SAMPLE TYPE-NO.	BLOWS ON SAMPLER				LITHOLOGY	DESCRIPTION / NOTES
			0 / 6		6 / 12			
			12 / 18	18 / 24	12 / 18	18 / 24		
5	24/8	SS-1	5	4	6	11	Brown, organic, TOPSOIL. (OL)	
	24/9	SS-2	33	21	18	10	Damp, brown, silty GRAVEL, trace sand, trace clay. (GM) Wet, medium brown, SAND, some fine to medium gravel, little silt. (SW)	
10	24/12	SS-3	3	6	9	11	Saturated, medium brown, SILT, trace fine sand, trace fine to medium gravel. (ML)	
	24/22	SS-4	6	8	9	11	Moist, medium brown, SILT, trace very fine sand, trace clay. (ML)	
15	24/8	SS-5	7	8	8	8	Moist, dark gray, SILT, some clay, little very fine sand, trace gravel. (ML/CL)	
	24/17	SS-6	4	6	6	7	Moist, dark gray, SILT and CLAY, trace gravel. (CL)	
20	24/18	SS-7	1	4	5	6		
	24/18	SS-8	2	3	6	7		
25	24/17	SS-9	2	5	6	8		
	24/23	SS-10	2	3	5	7		
30							AUGERED TO 18 FT. SAMPLED TO 20 FT. THE WATER LEVEL WAS MEASURED AT 2.0 FT. B.G.S.- WHILE THE BOTTOM OF THE AUGERS WERE 18.0 FT. B.G.S.. NO RADIATION DETECTED ABOVE BACKGROUND BY R/S.	
35								

CLASSIFICATION: VISUAL (Modified Burmister),USCS

METHOD OF SAMPLING: ASTM D1586-84

SHEET 1 OF 1		Dames & Moore Overburden Well Construction	HOLE/WELL NO.:	0704
DATE STARTED:	12/7/89		SURFACE ELEVATION:	1,392.09
DATE FINISHED:	12/7/89		NORTHING:	893,729.45
DRILLER:	Empire Soils Inv. Hamburg, New York		EASTING:	480,452.19
FIELD GEOLOGIST:	FJC		LOCATION:	EAST OF CPC STORAGE
PROJECT:	WVDP DOE/RCRA wells	SSWMU Locale:	7	
JOB NUMBER:	10805-410			



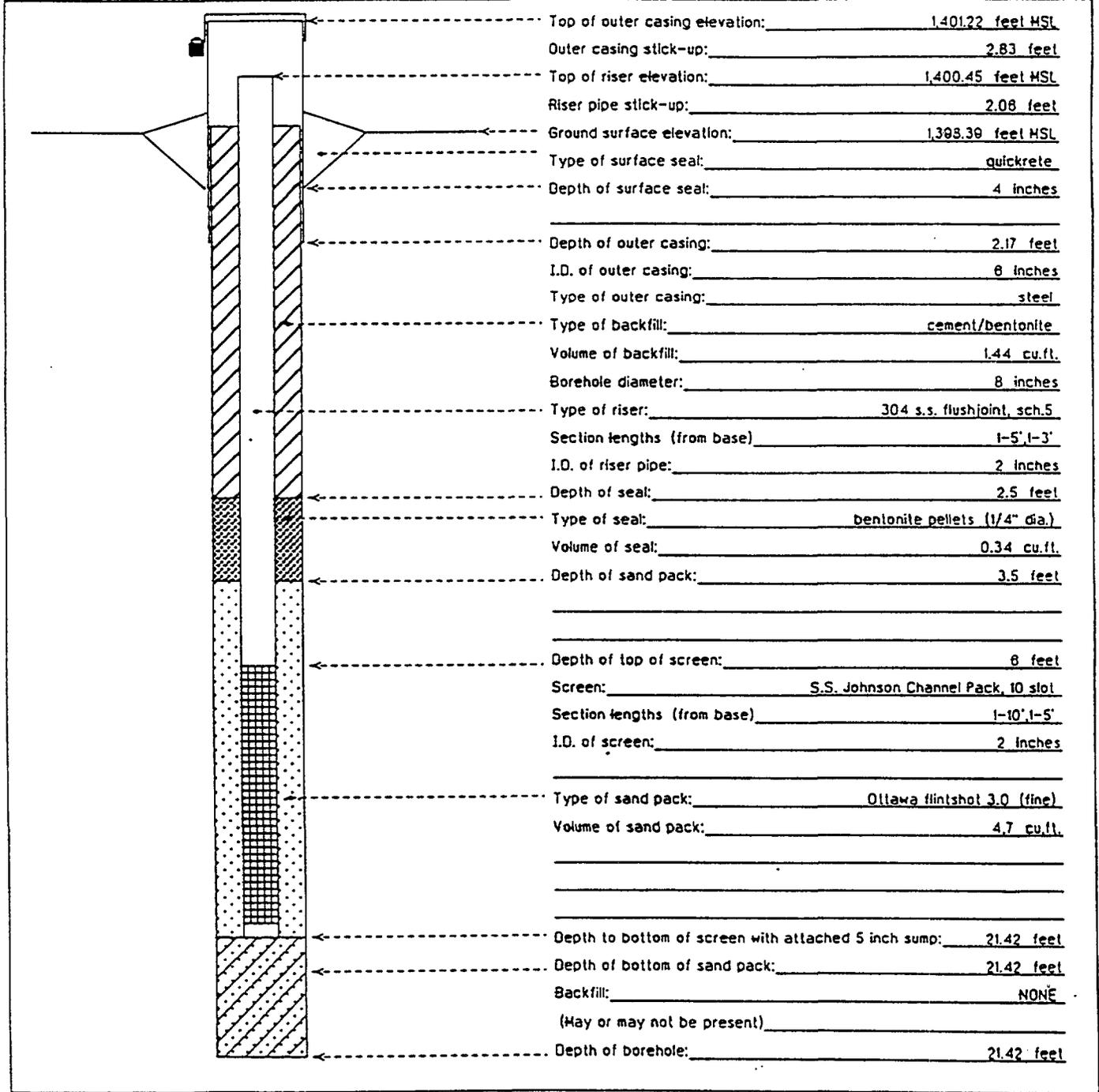
SHEET 1 OF: 1 DATE STARTED: 1/17/90 DATE FINISHED: 1/17/90 DRILLER: Empire Soils Inv. Hamburg, New York INSPECTOR: FJC	<h1 style="margin:0;">BORING LOG</h1> <h2 style="margin:0;">DAMES &amp; MOORE</h2>	HOLE/WELL NO.: 0705 SURFACE ELEVATION: 1,398.39  NORTHING 893,745.44 EASTING 480,147.98  PROJECT: WVDP DOE/RCRA wells JOB NUMBER: 10805-410-023  LOCATION: W. CPC STORAGE AREA SSWMU Locale: 7
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DEPTH IN FEET	INCHES DRIVEN / RECOVERED	SAMPLE TYPE-NO.	BLOWS ON SAMPLER		LITHOLOGY	DESCRIPTION / NOTES
			0 / 6	6 / 12		
			12 / 18	18 / 24		
						Dark brown, organic, TOPSOIL. (OL)
						Damp, medium brown, SILT, little fine to medium gravel, little sand, trace clay. (SM)
5						Damp, medium brown, silty SAND and coarse GRAVEL, trace clay. (GM)
						Moist, medium brown, SILT. (ML)
						Moist, brownish-gray, SILT and CLAY, trace sand. (CL)
10						Damp to moist, dark gray, CLAY and SILT, trace fine to medium gravel, trace medium to coarse sand. (CL)
15						Damp to moist, dark gray, CLAY and SILT, trace fine to medium gravel, trace medium to coarse sand. (CL)
20						
25						AUGERED TO 21.0 FT. NO SAMPLES TAKEN - DESCRIPTION FROM BORING 0702DS THE WATER LEVEL WAS MEASURED AT 15.0 FT. B.G.S.- WHILE THE BOTTOM OF THE AUGERS WERE 15.0 FT. B.G.S.. NO RADIATION WAS DETECTED ABOVE BACKGROUND BY R/S
30						
35						

CLASSIFICATION: VISUAL (Modified Burmister),USCS

METHOD OF SAMPLING: SEE 0702

SHEET 1 OF 1		Dames & Moore Overburden Well Construction	HOLE/WELL NO.:	0705	
DATE STARTED:	1/17/90		SURFACE ELEVATION:	1,398.39	
DATE FINISHED:	1/17/90		NORTHING:	893,745.44	
DRILLER:	Empire Soils Inv. Hamburg, New York		EASTING:	480,147.98	
FIELD GEOLOGIST:	FJC	PROJECT:	WVDP DOE/RCRA wells	LOCATION:	W. CPC STORAGE AREA
		JOB NUMBER:	10805-410-023	SSWMU Locale:	7



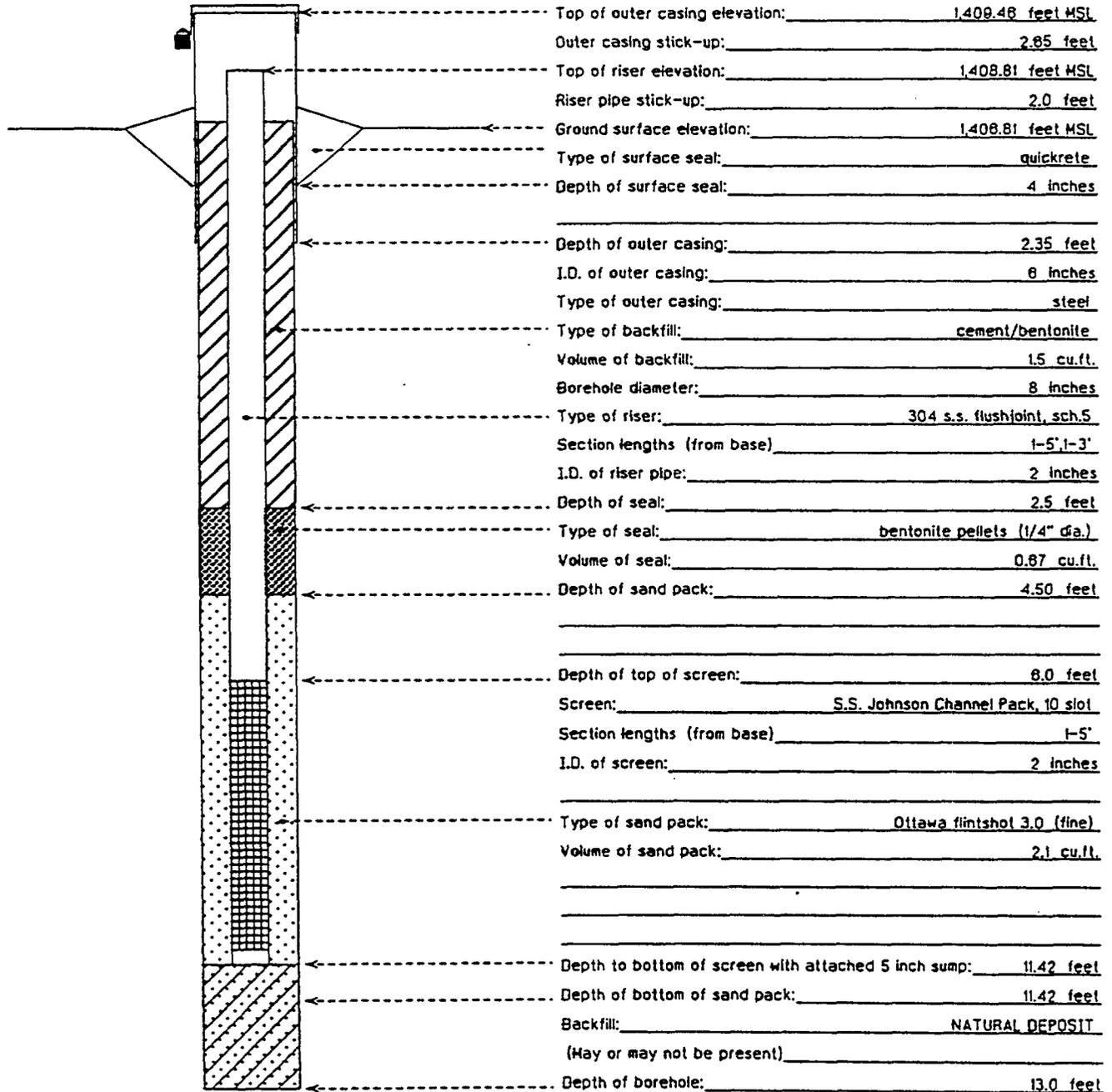
SHEET 1 OF: 1 DATE STARTED: 1/19/90 DATE FINISHED: 1/23/90 DRILLER: Empire Soils Inv. Hamburg, New York INSPECTOR: FJC	<h1 style="margin: 0;">BORING LOG</h1> <h2 style="margin: 10px 0 0 0;">DAMES &amp; MOORE</h2>	HOLE/WELL NO.: 0706 SURFACE ELEVATION: 1,406.81  NORTHING 893,478.76 EASTING 480,245.61  PROJECT: WVDP DOE/RCRA wells JOB NUMBER: 10805-410-023  LOCATION: S. CPC STORAGE AREA SSWMU Locale: 7
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DEPTH IN FEET	INCHES DRIVEN / RECOVERED	SAMPLE TYPE-NO.	BLOWS ON SAMPLER		LITHOLOGY	DESCRIPTION / NOTES
			0 / 6	6 / 12		
			12 / 18	18 / 24		
					Grass, organic, TOPSOIL. (OL)	
5					Dry, reddish-brown, SILT and fine to medium GRAVEL, little fine sand, trace clay, green mottling. (GM) Moist, reddish-brown, silty GRAVEL to SILT and GRAVEL, little fine sand, trace clay, mottled, loose. (GM)	
10					Moist, brown, SILT, trace to little subangular gravel, trace sand, mottled. (GM/ML) Moist, brown, SILT, little clay, trace fine to medium subangular gravel, trace fine sand. (ML)	
15					Moist to wet, gray, SILT and CLAY, trace fine to medium subangular gravel. (CL)	
20					AUGERED TO 13.0 FT. NO SAMPLES TAKEN - DESCRIPTION FROM 0701US THE WATER LEVEL WAS MEASURED AT 6.2 FT.B.G.S.- WHILE THE BOTTOM OF THE AUGERS WERE 13.0 FT. B.G.S.. NO RADIATION WAS DETECTED ABOVE BACKGROUND BY R/S	
25						
30						
35						

CLASSIFICATION: VISUAL (Modified Burmister),USCS

METHOD OF SAMPLING: ASTM D1586-84

SHEET 1 OF 1 DATE STARTED: 1/19/90 DATE FINISHED: 1/23/90 DRILLER: Empire Soils Inv. Hamburg, New York FIELD GEOLOGIST: FJC		<b>Dames &amp; Moore</b> Overburden Well Construction		HOLE/WELL NO.: 0708 SURFACE ELEVATION: 1,408.81 NORTHING: 893,478.78 EASTING: 480,245.81
PROJECT: WVDP DOE/RCRA wells JOB NUMBER: 10805-410-023		LOCATION: S. CPC STORAGE AREA SSWMU Locale: 7		



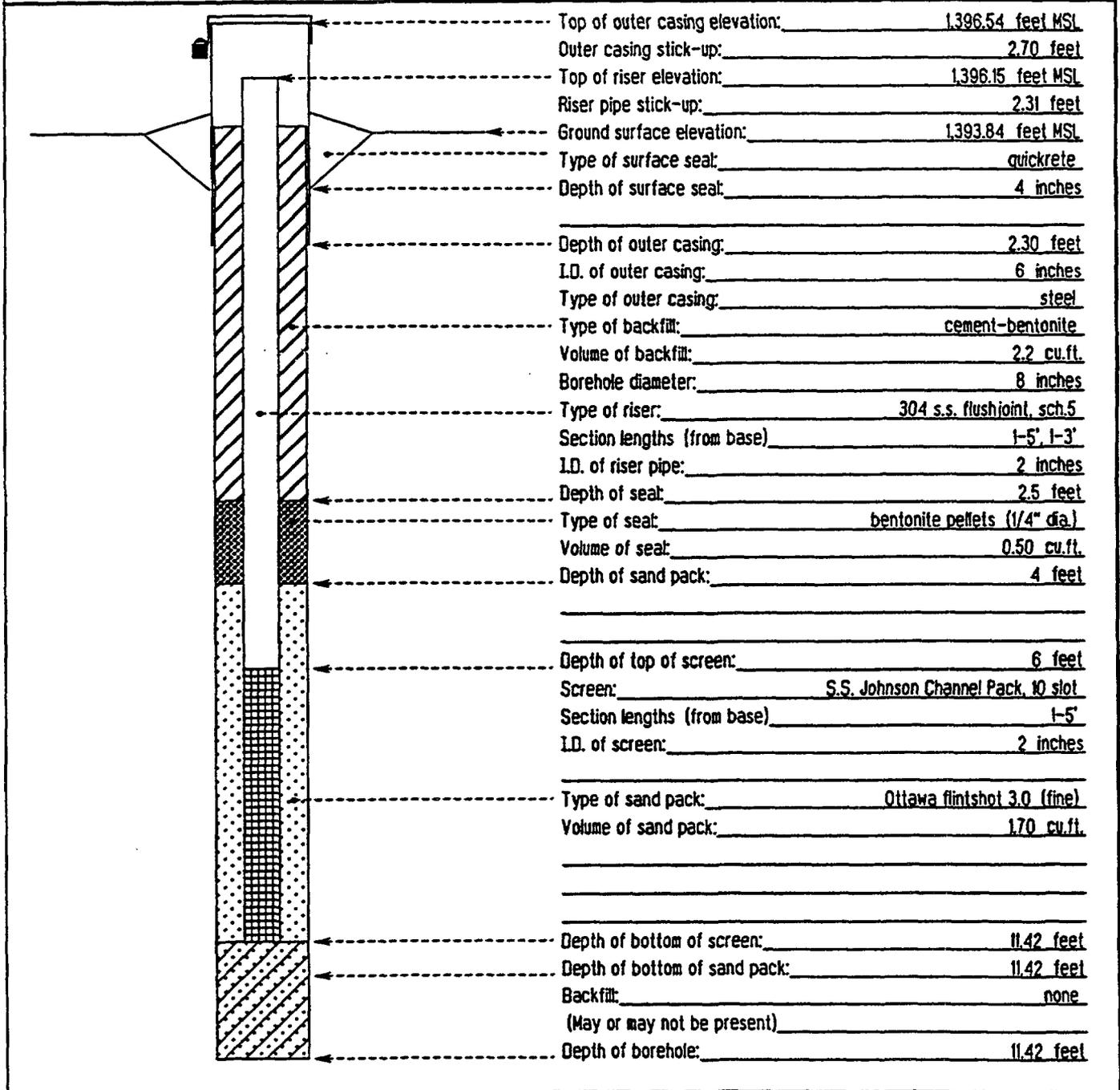
SHEET 1 OF: 1	<b>BORING LOG</b>	HOLE/WELL NO.: 0707
DATE STARTED: 1/19/90		SURFACE ELEVATION: 1,393.84
DATE FINISHED: 1/19/90		
DRILLER: Empire Soils Inv. Hamburg, New York		
INSPECTOR: FJC	<b>DAMES &amp; MOORE</b>	NORTHING 893,862.42
		EASTING 480,256.02
PROJECT: WVDP DOE/RCRA wells		LOCATION: NORTH OF CPC STORAGE
JOB NUMBER: 10805-410-023		SSWMU Locale: 7

DEPTH IN FEET	INCHES DRIVEN / RECOVERED	SAMPLE TYPE-NO.	BLOWS ON SAMPLER		LITHOLOGY	DESCRIPTION / NOTES
			0 / 6	6 / 12		
			12 / 18	18 / 24		
						TOPSOIL and Fill GRAVEL. (OL)
						Moist, brown, SILT, some to little fine to medium GRAVEL, little fine to coarse sand, trace clay. (GM)
5						Moist, reddish-brown, fine to coarse GRAVEL and SAND, little silt, trace subangular gravel, trace clay, mottled. (ML/GM)
						Wet, brown, SILT, some to little and fine to medium gravel, little very fine sand, some to little clay. (GM)
10						Moist, brown, SILT, trace to little clay, trace fine to medium gravel, weathered, mottled. (ML/CL)
						Moist, gray, SILT, trace fine gravel, trace clay. (ML)
15						AUGERED TO 11.0 FT. NO SAMPLES TAKEN DESCRIPTION FROM BORING 0703DS THE WATER LEVEL WAS MEASURED AT 10 FT. B.G.S.- WHILE THE BOTTOM OF THE AUGERS WERE 10.0 FT. B.G.S.. NO RADIATION DETECTED ABOVE BACKGROUND BY R/S
20						
25						
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35						

CLASSIFICATION: VISUAL (Modified Burmister),USCS

METHOD OF SAMPLING: see 0703

HOLE/WELL NO.: 0707	<b>DAMES &amp; MOORE</b> <b>Overburden</b> <b>Well Construction</b>	SHEET 1 OF 1
DATE STARTED: 1/19/90		SURFACE ELEVATION: 1,393.84
DATE FINISHED: 1/19/90		GROUNDWATER DEPTH:
DRILLER: Empire Soils Inv. Hamburg, New York		MEASUREMENT DATE:
FIELD GEOLOGIST: FJC		NORTHING: 893,862.42 EASTING: 480,256.02
PROJECT: WVDP DOE/RCRA wells	LOCATION: NORTH OF CPC STORAGE	
JOB NUMBER: 10805-410-023	SWMU Locale: 7	



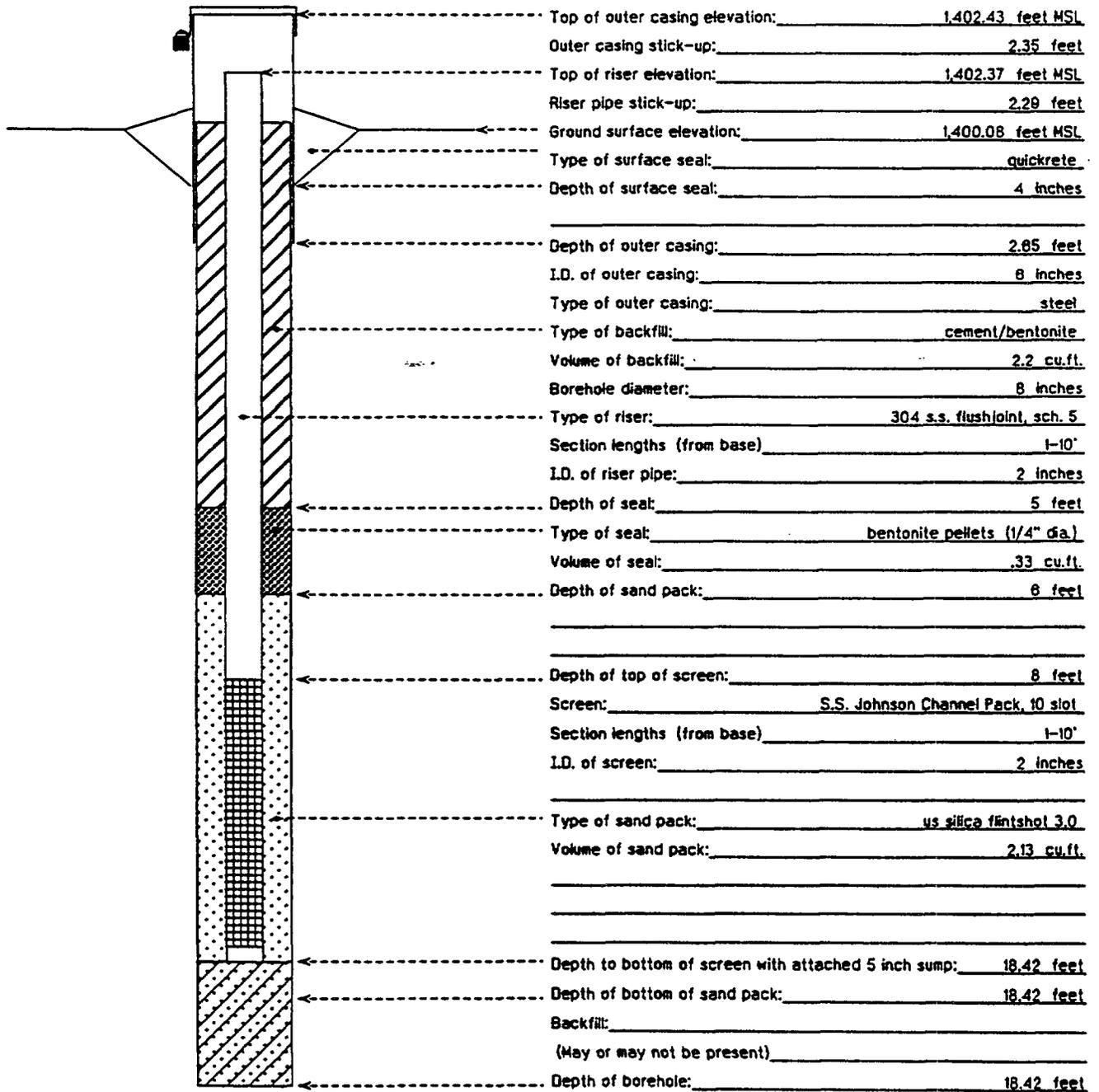
SHEET 1 OF: 1 DATE STARTED: 6/5/90 DATE FINISHED: 6/5/90 DRILLER: Empire Soils Inv. Hamburg, New York INSPECTOR: FJC	<h1 style="margin:0;">BORING LOG</h1> <h2 style="margin:0;">DAMES &amp; MOORE</h2>	HOLE/WELL NO.: 1008c SURFACE ELEVATION: 1,400.08 NORTHING 890,871.18 EASTING 481,172.30 LOCATION: WSW DRUMCELL SSWMU Locale: 10
PROJECT: WVDP DOE/RCRA wells JOB NUMBER: 10805-410-023		

DEPTH IN FEET	INCHES DRIVEN / RECOVERED	SAMPLE TYPE-NO.	BLOWS ON SAMPLER		LITHOLOGY	DESCRIPTION / NOTES
			0 / 6	6 / 12		
			12 / 18	18 / 24		
5						Organic layer w/grass and TOPSOIL. (OL) Damp, brown to gray, SILT, little clay, some fine sand, trace subrounded to angular gravel, some, orange & green mottling.
10						Moist, gray, CLAY, some gravel (shale fragments) trace sand. (CL)
15						Moist, dark gray, CLAY, some silt, trace fine to coarse subangular gravel, trace sand. (CL)
20						AUGERED TO 18 FT. SEE 1008B FOR SAMPLING DETAILS THE WATER LEVEL WAS MEASURED AT 8.4 FT. B.G.S. - WHILE THE BOTTOM OF THE AUGERS WERE 18.0 FT. B.G.S.. NO RADIATION DETECTED ABOVE BACKGROUND BY R/S.
25						
30						
35						

CLASSIFICATION: VISUAL (Modified Burmister),USCS

METHOD OF SAMPLING: SEE 1008B

SHEET 1 OF 1		Dames & Moore Overburden Well Construction	HOLE/WELL NO.:	1008c
DATE STARTED:	6/5/90		SURFACE ELEVATION:	1,400.08
DATE FINISHED:	6/5/90		NORTHING:	890,871.18
DRILLER:	Empire Soils Inv. Hamburg, New York		EASTING:	481,172.30
FIELD GEOLOGIST:	FJC		LOCATION:	WSW DRUMCELL
PROJECT:	WVDP DOE/RCRA wells	SSWMU Locale:	10	
JOB NUMBER:	10805-410-023			



Appendix C

Contamination Indicator Parameters

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Groundwater Contamination Indicator Parameter Data  
at the CPCWSA for 1991 - 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Real_Data	Units	Sample_ID	Flags
LAVERY TILL							
WNW0702	Cond	01/23/91		1101.00	μmhos/cm	91-00508	
WNW0702	Cond	01/23/91		1084.00	μmhos/cm	91-00508	
WNW0702	Cond	02/19/91		1063.00	μmhos/cm	91-01245	
WNW0702	Cond	05/06/91		1030.00	μmhos/cm	91-03385	
WNW0702	Cond	06/10/91		1045.00	μmhos/cm	91-04938	
WNW0702	Cond	07/22/91		1053.00	μmhos/cm	91-06396	
WNW0702	Cond	09/09/91		1028.00	μmhos/cm	91-07952	
WNW0702	Cond	09/09/91		1028.00	μmhos/cm	91-07952	
WNW0702	Cond	10/14/91		963.00	μmhos/cm	91-09298	
WNW0702	Cond	12/02/91		993.00	μmhos/cm	91-11639	
WNW0702	Cond	12/02/91		1036.00	μmhos/cm	91-11639	
WNW0702	Cond	02/05/92		1096.00	μmhos/cm	92-00151	
WNW0702	Cond	02/05/92		979.00	μmhos/cm	92-00151	
WNW0702	Cond	03/16/92		964.00	μmhos/cm	92-02160	
WNW0702	Cond	04/27/92		961.00	μmhos/cm	92-04268	
WNW0702	Cond	04/27/92		967.00	μmhos/cm	92-04268	
WNW0702	Cond	08/10/92		962.00	μmhos/cm	92-07473	
WNW0702	Cond	08/24/92		769.00	μmhos/cm	92-09040	
WNW0702	Cond	08/24/92		742.00	μmhos/cm	92-09040	
WNW0702	Cond	10/05/92		985.00	μmhos/cm	92-10620	
WNW0702	Cond	10/05/92		983.00	μmhos/cm	92-10620	
WNW0702	Cond	11/02/92		986.00	μmhos/cm	92-11643	
WNW0702	Cond	11/02/92		974.00	μmhos/cm	92-11643	
WNW0702	Cond	12/03/92		474.00	μmhos/cm	92-12953	
WNW0702	Cond	01/11/93		1075.00	μmhos/cm	93-00193	
WNW0702	Cond	01/11/93		988.00	μmhos/cm	93-00193	
WNW0702	Cond	02/17/93		952.00	μmhos/cm	93-01852	
WNW0702	Cond	02/17/93		988.00	μmhos/cm	93-01852	
WNW0702	Cond	04/19/93		956.00	μmhos/cm	93-03806	
WNW0702	Cond	05/24/93		900.00	μmhos/cm	93-05640	
WNW0702	Cond	05/24/93		885.00	μmhos/cm	93-05640	
WNW0702	Cond	07/13/93		960.00	μmhos/cm	93-07027	
WNW0702	Cond	07/13/93		945.00	μmhos/cm	93-07027	
WNW0702	Cond	11/05/93		991.00	μmhos/cm	93-11570	
WNW0702	Cond	02/14/94		918.00	μmhos/cm	94-00297	
WNW0702	Cond	02/14/94		939.00	μmhos/cm	94-00297	
WNW0702	Cond	04/28/94		946.00	μmhos/cm	94-03430	
WNW0702	Cond	07/01/94		905.00	μmhos/cm	94-06875	
WNW0702	Cond	10/04/94		900.00	μmhos/cm	94-11021	
WNW0702	NPOC	01/23/91		3.50	mg/L	91-00512	
WNW0702	NPOC	02/19/91		4.90	mg/L	91-01249	
WNW0702	NPOC	05/06/91		5.80	mg/L	91-03388	
WNW0702	NPOC	06/10/91		1.40	mg/L	91-04942	
WNW0702	NPOC	07/22/91		2.30	mg/L	91-06400	

Groundwater Contamination Indicator Parameter Data  
at the CPCWSA for 1991 - 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Real_Data	Units	Sample_ID	Flags
WNW0702	NPOC	09/09/91		3.60	mg/L	91-07956	
WNW0702	NPOC	10/14/91		5.80	mg/L	91-09301	
WNW0702	NPOC	12/02/91		3.30	mg/L	91-11643	
WNW0702	NPOC	02/05/92		0.60	mg/L	92-00152	
WNW0702	NPOC	03/16/92		1.50	mg/L	92-02161	
WNW0702	NPOC	03/16/92		1.60	mg/L	92-02161	
WNW0702	NPOC	04/27/92		0.90	mg/L	92-04269	
WNW0702	NPOC	08/10/92		0.90	mg/L	92-07474	J
WNW0702	NPOC	08/24/92		1.00	mg/L	92-09041	
WNW0702	NPOC	08/24/92		0.90	mg/L	92-09041	
WNW0702	NPOC	10/05/92		0.70	mg/L	92-10621	
WNW0702	NPOC	11/02/92		0.80	mg/L	92-11644	
WNW0702	NPOC	12/03/92		0.60	mg/L	92-12954	
WNW0702	NPOC	01/11/93		0.50	mg/L	93-00194	
WNW0702	NPOC	02/17/93		0.70	mg/L	93-01853	
WNW0702	NPOC	04/19/93		0.50	mg/L	93-03807	
WNW0702	NPOC	05/24/93		0.50	mg/L	93-05641	
WNW0702	NPOC	07/13/93		0.60	mg/L	93-07028	
WNW0702	NPOC	07/13/93		0.40	mg/L	93-07028	
WNW0702	NPOC	11/05/93		0.70	mg/L	93-11571	
WNW0702	NPOC	02/14/94		0.60	mg/L	94-00298	
WNW0702	NPOC	04/28/94		0.60	mg/L	94-03431	
WNW0702	NPOC	07/01/94		0.60	mg/L	94-06876	
WNW0702	NPOC	10/04/94	ND < 1.00	1.00	mg/L	94-11030	
WNW0702	TOX	01/23/91		0.00	µg/L	91-00511	
WNW0702	TOX	02/19/91		21.00	µg/L	91-01248	
WNW0702	TOX	05/06/91	ND < 5.00	5.00	µg/L	91-03388	
WNW0702	TOX	06/10/91		7.30	µg/L	91-04942	
WNW0702	TOX	07/22/91		7.90	µg/L	91-06400	
WNW0702	TOX	09/09/91	ND < 5.00	5.00	µg/L	91-07956	
WNW0702	TOX	10/14/91		6.00	µg/L	91-09301	
WNW0702	TOX	12/02/91	ND < 5.00	5.00	µg/L	91-11643	
WNW0702	TOX	02/05/92	ND < 4.00	4.00	µg/L	92-00152	
WNW0702	TOX	03/16/92	ND < 4.00	4.00	µg/L	92-02161	
WNW0702	TOX	04/27/92	ND < 4.00	4.00	µg/L	92-04269	
WNW0702	TOX	08/10/92	ND < 4.00	4.00	µg/L	92-07474	
WNW0702	TOX	08/24/92	ND < 4.00	4.00	µg/L	92-09041	
WNW0702	TOX	10/05/92	ND < 4.00	4.00	µg/L	92-10621	
WNW0702	TOX	11/02/92	ND < 4.00	4.00	µg/L	92-11644	
WNW0702	TOX	12/03/92	ND < 4.00	4.00	µg/L	92-12954	
WNW0702	TOX	01/11/93		2.90	µg/L	93-00194	
WNW0702	TOX	02/17/93	ND < 2.00	2.00	µg/L	93-01853	
WNW0702	TOX	04/19/93	ND < 2.00	2.00	µg/L	93-03807	
WNW0702	TOX	05/24/93		3.10	µg/L	93-05641	
WNW0702	TOX	07/13/93	ND < 2.00	2.00	µg/L	93-07028	

Groundwater Contamination Indicator Parameter Data  
at the CPCWSA for 1991 - 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Real_Data	Units	Sample_ID	Flags
WNW0702	TOX	11/05/93	ND <2.00	2.00	µg/L	93-11571	
WNW0702	TOX	02/14/94	ND <2.00	2.00	µg/L	94-00298	
WNW0702	TOX	04/28/94	ND <2.00	2.00	µg/L	94-03431	
WNW0702	TOX	07/01/94	ND <2.00	2.00	µg/L	94-06876	
WNW0702	TOX	10/04/94		5.90	µg/L	94-11022	
WNW0702	pH	01/23/91		7.46	N/A	91-00508	
WNW0702	pH	01/23/91		7.46	N/A	91-00508	
WNW0702	pH	02/19/91		7.40	N/A	91-01245	
WNW0702	pH	05/06/91		7.43	N/A	91-03385	
WNW0702	pH	06/10/91		7.10	N/A	91-04938	
WNW0702	pH	07/22/91		7.32	N/A	91-06396	
WNW0702	pH	09/09/91		7.30	N/A	91-07952	
WNW0702	pH	09/09/91		7.25	N/A	91-07952	
WNW0702	pH	10/14/91		7.04	N/A	91-09298	
WNW0702	pH	12/02/91		7.45	N/A	91-11639	
WNW0702	pH	12/02/91		7.52	N/A	91-11639	
WNW0702	pH	02/05/92		7.09	N/A	92-00151	
WNW0702	pH	02/05/92		7.05	N/A	92-00151	
WNW0702	pH	03/16/92		6.78	N/A	92-02160	
WNW0702	pH	04/27/92		7.09	N/A	92-04268	
WNW0702	pH	04/27/92		7.04	N/A	92-04268	
WNW0702	pH	08/10/92		7.29	N/A	92-07473	
WNW0702	pH	08/24/92		8.27	N/A	92-09040	
WNW0702	pH	08/24/92		8.01	N/A	92-09040	
WNW0702	pH	10/05/92		7.22	N/A	92-10620	
WNW0702	pH	10/05/92		7.25	N/A	92-10620	
WNW0702	pH	11/02/92		7.18	N/A	92-11643	
WNW0702	pH	11/02/92		7.20	N/A	92-11643	
WNW0702	pH	12/03/92		7.12	N/A	92-12953	
WNW0702	pH	01/11/93		7.03	N/A	93-00193	
WNW0702	pH	01/11/93		7.04	N/A	93-00193	
WNW0702	pH	02/17/93		7.22	N/A	93-01852	
WNW0702	pH	02/17/93		7.16	N/A	93-01852	
WNW0702	pH	04/19/93		7.20	N/A	93-03806	
WNW0702	pH	05/24/93		7.29	N/A	93-05640	
WNW0702	pH	05/24/93		7.31	N/A	93-05640	
WNW0702	pH	07/13/93		7.23	N/A	93-07027	
WNW0702	pH	07/13/93		7.20	N/A	93-07027	
WNW0702	pH	11/05/93		7.21	N/A	93-11570	
WNW0702	pH	02/14/94		6.97	N/A	94-00297	
WNW0702	pH	02/14/94		7.02	N/A	94-00297	
WNW0702	pH	04/28/94		7.37	N/A	94-03430	
WNW0702	pH	07/01/94		7.15	N/A	94-06875	
WNW0702	pH	10/04/94		7.41	N/A	94-11021	

Groundwater Contamination Indicator Parameter Data  
at the CPCWSA for 1991 - 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Real_Data	Units	Sample_ID	Flags
WNW0703	Cond	01/17/91		855.00	μmhos/cm	91-00421	
WNW0703	Cond	02/21/91		861.00	μmhos/cm	91-01371	
WNW0703	Cond	05/06/91		807.00	μmhos/cm	91-03455	
WNW0703	Cond	06/10/91		807.00	μmhos/cm	91-04944	
WNW0703	Cond	07/22/91		874.00	μmhos/cm	91-06401	
WNW0703	Cond	07/22/91		872.00	μmhos/cm	91-06401	
WNW0703	Cond	09/09/91		873.00	μmhos/cm	91-07957	
WNW0703	Cond	09/09/91		875.00	μmhos/cm	91-07957	
WNW0703	Cond	10/14/91		850.00	μmhos/cm	91-09302	
WNW0703	Cond	10/14/91		880.00	μmhos/cm	91-09302	
WNW0703	Cond	12/02/91		774.00	μmhos/cm	91-11651	
WNW0703	Cond	12/02/91		821.00	μmhos/cm	91-11651	
WNW0703	Cond	02/05/92		916.00	μmhos/cm	92-00155	
WNW0703	Cond	02/05/92		798.00	μmhos/cm	92-00155	
WNW0703	Cond	03/16/92		770.00	μmhos/cm	92-02171	
WNW0703	Cond	04/29/92		876.00	μmhos/cm	92-04272	
WNW0703	Cond	04/29/92		826.00	μmhos/cm	92-04272	
WNW0703	Cond	08/10/92		776.00	μmhos/cm	92-07486	
WNW0703	Cond	08/10/92		853.00	μmhos/cm	92-07486	
WNW0703	Cond	08/24/92		849.00	μmhos/cm	92-09044	
WNW0703	Cond	08/24/92		889.00	μmhos/cm	92-09044	
WNW0703	Cond	10/05/92		883.00	μmhos/cm	92-10624	
WNW0703	Cond	10/05/92		939.00	μmhos/cm	92-10624	
WNW0703	Cond	11/02/92		940.00	μmhos/cm	92-11647	
WNW0703	Cond	12/04/92		834.00	μmhos/cm	92-12966	
WNW0703	Cond	01/11/93		905.00	μmhos/cm	93-00197	
WNW0703	Cond	01/11/93		819.00	μmhos/cm	93-00197	
WNW0703	Cond	02/17/93		801.00	μmhos/cm	93-01862	
WNW0703	Cond	02/17/93		826.00	μmhos/cm	93-01862	
WNW0703	Cond	04/19/93		818.00	μmhos/cm	93-03810	
WNW0703	Cond	04/19/93		765.00	μmhos/cm	93-03810	
WNW0703	Cond	05/24/93		777.00	μmhos/cm	93-05644	
WNW0703	Cond	05/24/93		796.00	μmhos/cm	93-05644	
WNW0703	Cond	07/12/93		757.00	μmhos/cm	93-07031	
WNW0703	Cond	11/08/93		762.00	μmhos/cm	93-11579	
WNW0703	Cond	02/14/94		744.00	μmhos/cm	94-00300	
WNW0703	Cond	02/14/94		760.00	μmhos/cm	94-00300	
WNW0703	Cond	05/05/94		744.00	μmhos/cm	94-03439	
WNW0703	Cond	05/05/94		743.00	μmhos/cm	94-03439	
WNW0703	Cond	07/01/94		735.00	μmhos/cm	94-06629	
WNW0703	Cond	10/04/94		736.00	μmhos/cm	94-11031	
WNW0703	Cond	10/04/94		734.00	μmhos/cm	94-11031	
WNW0703	NPOC	01/17/91	ND < 1.00	1.00	mg/L	91-00425	
WNW0703	NPOC	02/21/91		4.40	mg/L	91-01375	
WNW0703	NPOC	05/06/91		41.00	mg/L	91-03458	

Groundwater Contamination Indicator Parameter Data  
at the CPCWSA for 1991 - 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Real_Data	Units	Sample_ID	Flags
WNW0703	NPOC	06/10/91	ND < 1.00	1.00	mg/L	91-04947	
WNW0703	NPOC	07/22/91		3.90	mg/L	91-06405	
WNW0703	NPOC	09/09/91		7.40	mg/L	91-07961	
WNW0703	NPOC	10/14/91		1.30	mg/L	91-09305	
WNW0703	NPOC	12/02/91		2.20	mg/L	91-11655	
WNW0703	NPOC	02/05/92		0.40	mg/L	92-00156	
WNW0703	NPOC	03/16/92		0.50	mg/L	92-02172	
WNW0703	NPOC	03/16/92		0.60	mg/L	92-02172	
WNW0703	NPOC	04/29/92		0.60	mg/L	92-04273	
WNW0703	NPOC	08/10/92		0.50	mg/L	92-07487	
WNW0703	NPOC	08/24/92		0.50	mg/L	92-09045	
WNW0703	NPOC	10/05/92		0.50	mg/L	92-10625	
WNW0703	NPOC	11/02/92		0.40	mg/L	92-11648	
WNW0703	NPOC	12/04/92		0.50	mg/L	92-12967	
WNW0703	NPOC	01/11/93		0.50	mg/L	93-00198	
WNW0703	NPOC	02/17/93		0.60	mg/L	93-01863	
WNW0703	NPOC	04/19/93		0.40	mg/L	93-03811	
WNW0703	NPOC	05/24/93		0.50	mg/L	93-05645	
WNW0703	NPOC	07/12/93		0.40	mg/L	93-07032	
WNW0703	NPOC	07/12/93		0.50	mg/L	93-07032	
WNW0703	NPOC	11/08/93		0.50	mg/L	93-11580	
WNW0703	NPOC	02/14/94		0.40	mg/L	94-00301	
WNW0703	NPOC	05/05/94		0.30	mg/L	94-03440	
WNW0703	NPOC	07/01/94		0.50	mg/L	94-06630	
WNW0703	NPOC	10/04/94	ND < 1.00	1.00	mg/L	94-11040	
WNW0703	TOX	01/17/91	ND < 5.00	5.00	µg/L	91-00424	
WNW0703	TOX	02/21/91		6.90	µg/L	91-01374	
WNW0703	TOX	05/06/91		90.00	µg/L	91-03458	
WNW0703	TOX	06/10/91	ND < 5.00	5.00	µg/L	91-04947	
WNW0703	TOX	07/22/91	ND < 5.00	5.00	µg/L	91-06405	
WNW0703	TOX	09/09/91	ND < 5.00	5.00	µg/L	91-07961	
WNW0703	TOX	10/14/91		6.40	µg/L	91-09305	
WNW0703	TOX	12/02/91	ND < 5.00	5.00	µg/L	91-11655	
WNW0703	TOX	02/05/92	ND < 4.00	4.00	µg/L	92-00156	
WNW0703	TOX	03/16/92	ND < 4.00	4.00	µg/L	92-02172	
WNW0703	TOX	04/29/92	ND < 4.00	4.00	µg/L	92-04273	
WNW0703	TOX	08/10/92	ND < 4.00	4.00	µg/L	92-07487	
WNW0703	TOX	08/24/92	ND < 4.00	4.00	µg/L	92-09045	
WNW0703	TOX	10/05/92	ND < 4.00	4.00	µg/L	92-10625	
WNW0703	TOX	11/02/92	ND < 4.00	4.00	µg/L	92-11648	
WNW0703	TOX	12/04/92	ND < 4.00	4.00	µg/L	92-12967	
WNW0703	TOX	01/11/93		2.20	µg/L	93-00198	
WNW0703	TOX	02/17/93	ND < 2.00	2.00	µg/L	93-01863	
WNW0703	TOX	04/19/93	ND < 2.00	2.00	µg/L	93-03811	
WNW0703	TOX	05/24/93	ND < 2.00	2.00	µg/L	93-05645	

Groundwater Contamination Indicator Parameter Data  
at the CPCWSA for 1991 - 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Real_Data	Units	Sample_ID	Flags
WNW0703	TOX	07/12/93	ND < 2.00	2.00	µg/L	93-07032	
WNW0703	TOX	11/08/93		3.00	µg/L	93-11580	
WNW0703	TOX	02/14/94	ND < 2.00	2.00	µg/L	94-00301	
WNW0703	TOX	05/05/94	ND < 2.00	2.00	µg/L	94-03440	
WNW0703	TOX	07/01/94	ND < 2.00	2.00	µg/L	94-06630	
WNW0703	TOX	10/04/94	ND < 5.00	5.00	µg/L	94-11032	UJ
WNW0703	pH	01/17/91		7.47	N/A	91-00421	
WNW0703	pH	02/21/91		7.42	N/A	91-01371	
WNW0703	pH	05/06/91		7.45	N/A	91-03455	
WNW0703	pH	06/10/91		7.20	N/A	91-04944	
WNW0703	pH	07/22/91		7.24	N/A	91-06401	
WNW0703	pH	07/22/91		7.17	N/A	91-06401	
WNW0703	pH	09/09/91		7.32	N/A	91-07957	
WNW0703	pH	09/09/91		7.41	N/A	91-07957	
WNW0703	pH	10/14/91		7.01	N/A	91-09302	
WNW0703	pH	10/14/91		7.03	N/A	91-09302	
WNW0703	pH	12/02/91		7.49	N/A	91-11651	
WNW0703	pH	12/02/91		6.78	N/A	91-11651	
WNW0703	pH	02/05/92		7.20	N/A	92-00155	
WNW0703	pH	02/05/92		7.16	N/A	92-00155	
WNW0703	pH	03/16/92		7.67	N/A	92-02171	
WNW0703	pH	04/29/92		7.15	N/A	92-04272	
WNW0703	pH	04/29/92		7.21	N/A	92-04272	
WNW0703	pH	08/10/92		7.29	N/A	92-07486	
WNW0703	pH	08/10/92		7.28	N/A	92-07486	
WNW0703	pH	08/24/92		8.05	N/A	92-09044	
WNW0703	pH	08/24/92		7.11	N/A	92-09044	
WNW0703	pH	10/05/92		7.25	N/A	92-10624	
WNW0703	pH	10/05/92		7.12	N/A	92-10624	
WNW0703	pH	11/02/92		7.13	N/A	92-11647	
WNW0703	pH	12/04/92		6.99	N/A	92-12966	
WNW0703	pH	01/11/93		6.93	N/A	93-00197	
WNW0703	pH	01/11/93		6.90	N/A	93-00197	
WNW0703	pH	02/17/93		7.00	N/A	93-01862	
WNW0703	pH	02/17/93		7.07	N/A	93-01862	
WNW0703	pH	04/19/93		7.19	N/A	93-03810	
WNW0703	pH	04/19/93		7.22	N/A	93-03810	
WNW0703	pH	05/24/93		7.13	N/A	93-05644	
WNW0703	pH	05/24/93		7.29	N/A	93-05644	
WNW0703	pH	07/12/93		7.25	N/A	93-07031	
WNW0703	pH	11/08/93		7.42	N/A	93-11579	
WNW0703	pH	02/14/94		7.27	N/A	94-00300	
WNW0703	pH	02/14/94		7.28	N/A	94-00300	
WNW0703	pH	05/05/94		7.45	N/A	94-03439	
WNW0703	pH	05/05/94		7.36	N/A	94-03439	

Groundwater Contamination Indicator Parameter Data  
at the CPCWSA for 1991 - 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Real_Data	Units	Sample_ID	Flags
WNW0703	pH	07/01/94		7.34	N/A	94-06629	
WNW0703	pH	10/04/94		7.51	N/A	94-11031	
WNW0703	pH	10/04/94		7.38	N/A	94-11031	

BACKGROUND

WNW1008C	Cond	03/21/91		542.00	µmhos/cm		
WNW1008C	Cond	05/08/91		541.00	µmhos/cm		
WNW1008C	Cond	06/12/91		458.00	µmhos/cm		
WNW1008C	Cond	07/22/91		480.50	µmhos/cm		
WNW1008C	Cond	09/11/91		509.50	µmhos/cm		
WNW1008C	Cond	10/16/91		520.50	µmhos/cm		
WNW1008C	Cond	12/04/91		539.00	µmhos/cm		
WNW1008C	Cond	02/05/92		548.50	µmhos/cm		
WNW1008C	Cond	03/18/92		508.00	µmhos/cm		
WNW1008C	Cond	04/27/92		544.00	µmhos/cm		
WNW1008C	Cond	07/29/92		555.50	µmhos/cm		
WNW1008C	Cond	09/09/92		568.00	µmhos/cm		
WNW1008C	Cond	10/19/92		563.50	µmhos/cm		
WNW1008C	Cond	11/16/92		557.00	µmhos/cm		
WNW1008C	Cond	12/17/92		551.50	µmhos/cm		
WNW1008C	Cond	01/25/93		513.50	µmhos/cm		
WNW1008C	Cond	03/01/93		536.50	µmhos/cm		
WNW1008C	Cond	05/03/93		508.00	µmhos/cm		
WNW1008C	Cond	06/07/93		507.50	µmhos/cm		
WNW1008C	Cond	07/26/93		536.00	µmhos/cm		
WNW1008C	Cond	11/29/93		567.00	µmhos/cm		
WNW1008C	Cond	03/07/94		543.00	µmhos/cm		
WNW1008C	Cond	05/26/94		537.50	µmhos/cm		
WNW1008C	NPOC	05/08/91		5.00	mg/L		
WNW1008C	NPOC	06/12/91		4.90	mg/L		
WNW1008C	NPOC	07/22/91		8.60	mg/L		
WNW1008C	NPOC	09/11/91		13.10	mg/L		
WNW1008C	NPOC	10/16/91		10.00	mg/L		
WNW1008C	NPOC	12/04/91		4.90	mg/L		
WNW1008C	NPOC	02/05/92		0.70	mg/L		
WNW1008C	NPOC	03/18/92		0.80	mg/L		
WNW1008C	NPOC	04/27/92		0.70	mg/L		
WNW1008C	NPOC	07/29/92		0.70	mg/L		
WNW1008C	NPOC	09/09/92		0.80	mg/L		
WNW1008C	NPOC	10/19/92		0.80	mg/L		
WNW1008C	NPOC	11/16/92		0.70	mg/L		
WNW1008C	NPOC	12/17/92		0.80	mg/L		
WNW1008C	NPOC	01/25/93		0.70	mg/L		
WNW1008C	NPOC	03/01/93		0.70	mg/L		

Groundwater Contamination Indicator Parameter Data  
at the CPCWSA for 1991 - 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Real_Data	Units	Sample_ID	Flags
WNW1008C	NPOC	05/03/93		0.70	mg/L		
WNW1008C	NPOC	06/07/93		0.80	mg/L		
WNW1008C	NPOC	07/26/93		0.80	mg/L		
WNW1008C	NPOC	11/29/93		0.80	mg/L		
WNW1008C	NPOC	03/07/94		0.70	mg/L		
WNW1008C	NPOC	05/26/94		0.80	mg/L		
WNW1008C	pH	03/21/91		7.33	N/A		
WNW1008C	pH	05/08/91		7.61	N/A		
WNW1008C	pH	06/12/91		7.51	N/A		
WNW1008C	pH	07/22/91		7.54	N/A		
WNW1008C	pH	09/11/91		7.38	N/A		
WNW1008C	pH	10/16/91		7.40	N/A		
WNW1008C	pH	12/04/91		7.27	N/A		
WNW1008C	pH	02/05/92		7.38	N/A		
WNW1008C	pH	03/18/92		7.44	N/A		
WNW1008C	pH	04/27/92		7.45	N/A		
WNW1008C	pH	07/29/92		7.41	N/A		
WNW1008C	pH	09/09/92		7.40	N/A		
WNW1008C	pH	10/19/92		7.09	N/A		
WNW1008C	pH	11/16/92		7.35	N/A		
WNW1008C	pH	12/17/92		7.56	N/A		
WNW1008C	pH	01/25/93		7.43	N/A		
WNW1008C	pH	03/01/93		7.72	N/A		
WNW1008C	pH	05/03/93		7.73	N/A		
WNW1008C	pH	06/07/93		7.47	N/A		
WNW1008C	pH	07/26/93		7.87	N/A		
WNW1008C	pH	11/29/93		7.47	N/A		
WNW1008C	pH	03/07/94		7.84	N/A		
WNW1008C	pH	05/26/94		7.66	N/A		
WNW1008C	TOX	05/08/91		8.10	µg/L		
WNW1008C	TOX	06/12/91		5.60	µg/L		
WNW1008C	TOX	07/22/91		11.00	µg/L		
WNW1008C	TOX	09/11/91	ND < 5.00	5.00	µg/L		
WNW1008C	TOX	10/16/91		8.40	µg/L		
WNW1008C	TOX	12/04/91	ND < 5.00	5.00	µg/L		
WNW1008C	TOX	02/05/92		17.40	µg/L		
WNW1008C	TOX	03/18/92		19.20	µg/L		
WNW1008C	TOX	04/27/92		15.50	µg/L		
WNW1008C	TOX	07/29/92	ND < 4.00	4.00	µg/L		
WNW1008C	TOX	09/09/92	ND < 4.00	4.00	µg/L		
WNW1008C	TOX	10/19/92		4.00	µg/L		
WNW1008C	TOX	11/16/92	ND < 4.00	4.00	µg/L		
WNW1008C	TOX	12/17/92	ND < 4.00	4.00	µg/L		
WNW1008C	TOX	01/25/93		5.80	µg/L		
WNW1008C	TOX	03/01/93		3.80	µg/L		

Groundwater Contamination Indicator Parameter Data  
at the CPCWSA for 1991 - 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Real_Data	Units	Sample_ID	Flags
WNW1008C	TOX	05/03/93		7.40	µg/L		
WNW1008C	TOX	06/07/93		36.20	µg/L		
WNW1008C	TOX	07/26/93		9.50	µg/L		
WNW1008C	TOX	11/29/93	ND < 2.00	2.00	µg/L		
WNW1008C	TOX	03/07/94		7.80	µg/L		
WNW1008C	TOX	05/26/94		6.50	µg/L		

SAND & GRAVEL

WNW0704	Cond	01/16/91		1088.00	µmhos/cm	91-00426	
WNW0704	Cond	01/16/91		1160.00	µmhos/cm	91-00426	
WNW0704	Cond	02/21/91		1053.00	µmhos/cm	91-01340	
WNW0704	Cond	02/21/91		1058.00	µmhos/cm	91-01340	
WNW0704	Cond	05/06/91		1123.00	µmhos/cm	91-03389	
WNW0704	Cond	06/10/91		1150.00	µmhos/cm	91-04949	
WNW0704	Cond	07/22/91		1048.00	µmhos/cm	91-06406	
WNW0704	Cond	07/22/91		1003.00	µmhos/cm	91-06406	
WNW0704	Cond	09/09/91		1064.00	µmhos/cm	91-07962	
WNW0704	Cond	09/09/91		1020.00	µmhos/cm	91-07962	
WNW0704	Cond	10/14/91		979.00	µmhos/cm	91-09306	
WNW0704	Cond	10/14/91		1104.00	µmhos/cm	91-09306	
WNW0704	Cond	12/02/91		1084.00	µmhos/cm	91-11663	
WNW0704	Cond	12/02/91		1139.00	µmhos/cm	91-11663	
WNW0704	Cond	02/05/92		1188.00	µmhos/cm	92-00159	
WNW0704	Cond	02/05/92		1202.00	µmhos/cm	92-00159	
WNW0704	Cond	03/16/92		1188.00	µmhos/cm	92-02182	
WNW0704	Cond	03/16/92		1146.00	µmhos/cm	92-02182	
WNW0704	Cond	04/29/92		1143.00	µmhos/cm	92-04276	
WNW0704	Cond	04/29/92		997.00	µmhos/cm	92-04276	
WNW0704	Cond	08/10/92		1096.00	µmhos/cm	92-07500	
WNW0704	Cond	08/10/92		1127.00	µmhos/cm	92-07500	
WNW0704	Cond	08/24/92		1185.00	µmhos/cm	92-09048	
WNW0704	Cond	08/24/92		1108.00	µmhos/cm	92-09048	
WNW0704	Cond	10/05/92		1152.00	µmhos/cm	92-10628	
WNW0704	Cond	10/05/92		1173.00	µmhos/cm	92-10628	
WNW0704	Cond	11/02/92		1158.00	µmhos/cm	92-11651	
WNW0704	Cond	11/02/92		1166.00	µmhos/cm	92-11651	
WNW0704	Cond	12/04/92		1065.00	µmhos/cm	92-12979	
WNW0704	Cond	12/04/92		1065.00	µmhos/cm	92-12979	
WNW0704	Cond	01/11/93		1080.00	µmhos/cm	93-00201	
WNW0704	Cond	01/11/93		1074.00	µmhos/cm	93-00201	
WNW0704	Cond	02/17/93		1061.00	µmhos/cm	93-01872	
WNW0704	Cond	02/17/93		1083.00	µmhos/cm	93-01872	
WNW0704	Cond	04/19/93		1050.00	µmhos/cm	93-03814	
WNW0704	Cond	04/19/93		1047.00	µmhos/cm	93-03814	

Groundwater Contamination Indicator Parameter Data  
at the CPCWSA for 1991 - 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Real_Data	Units	Sample_ID	Flags
WNW0704	Cond	05/24/93		1062.00	μmhos/cm	93-05648	
WNW0704	Cond	05/24/93		1074.00	μmhos/cm	93-05648	
WNW0704	Cond	07/12/93		1069.00	μmhos/cm	93-07035	
WNW0704	Cond	07/12/93		1116.00	μmhos/cm	93-07035	
WNW0704	Cond	11/08/93		1020.00	μmhos/cm	93-11717	
WNW0704	Cond	11/08/93		1089.00	μmhos/cm	93-11717	
WNW0704	Cond	02/14/94		1090.00	μmhos/cm	94-00303	
WNW0704	Cond	02/14/94		1045.00	μmhos/cm	94-00303	
WNW0704	Cond	05/04/94		985.00	μmhos/cm	94-03448	
WNW0704	Cond	05/04/94		958.00	μmhos/cm	94-03448	
WNW0704	Cond	07/01/94		970.00	μmhos/cm	94-06632	
WNW0704	Cond	07/01/94		996.00	μmhos/cm	94-06632	
WNW0704	Cond	10/05/94		934.00	μmhos/cm	94-11041	
WNW0704	Cond	10/05/94		1024.00	μmhos/cm	94-11041	
WNW0704	NPOC	01/16/91		28.20	mg/L	91-00430	
WNW0704	NPOC	02/21/91		44.00	mg/L	91-01344	
WNW0704	NPOC	05/06/91		110.00	mg/L	91-03392	
WNW0704	NPOC	06/10/91		33.00	mg/L	91-04952	
WNW0704	NPOC	08/02/91		32.00	mg/L	91-06410	
WNW0704	NPOC	09/09/91		26.00	mg/L	91-07966	
WNW0704	NPOC	10/14/91		20.00	mg/L	91-09309	
WNW0704	NPOC	12/02/91		27.00	mg/L	91-11667	
WNW0704	NPOC	02/05/92		19.40	mg/L	92-00160	
WNW0704	NPOC	02/05/92		19.60	mg/L	92-00160	
WNW0704	NPOC	03/16/92		18.40	mg/L	92-02183	
WNW0704	NPOC	04/29/92		17.40	mg/L	92-04277	
WNW0704	NPOC	04/29/92		17.40	mg/L	92-04277	
WNW0704	NPOC	08/10/92		18.20	mg/L	92-07501	
WNW0704	NPOC	08/24/92		19.10	mg/L	92-09049	
WNW0704	NPOC	10/05/92		22.00	mg/L	92-10648	
WNW0704	NPOC	10/05/92		21.80	mg/L	92-10629	
WNW0704	NPOC	10/05/92		21.60	mg/L	92-10629	
WNW0704	NPOC	11/02/92		22.00	mg/L	92-11652	
WNW0704	NPOC	12/04/92		21.90	mg/L	92-12980	
WNW0704	NPOC	12/04/92		21.90	mg/L	92-12980	
WNW0704	NPOC	01/11/93		18.90	mg/L	93-00202	
WNW0704	NPOC	01/11/93		19.10	mg/L	93-00202	
WNW0704	NPOC	01/11/93		19.00	mg/L	93-00237	
WNW0704	NPOC	02/17/93		19.50	mg/L	93-01873	
WNW0704	NPOC	04/19/93		20.20	mg/L	93-03815	
WNW0704	NPOC	04/19/93		20.70	mg/L	93-03815	
WNW0704	NPOC	05/24/93		19.90	mg/L	93-05649	
WNW0704	NPOC	07/12/93		22.80	mg/L	93-07036	
WNW0704	NPOC	07/12/93		21.80	mg/L	93-07036	
WNW0704	NPOC	11/08/93		27.00	mg/L	93-11718	

Groundwater Contamination Indicator Parameter Data  
at the CPCWSA for 1991 - 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Real_Data	Units	Sample_ID	Flags
WNW0704	NPOC	02/14/94		23.00	mg/L	94-00304	
WNW0704	NPOC	05/04/94		19.80	mg/L	94-03449	
WNW0704	NPOC	07/01/94		30.80	mg/L	94-06633	
WNW0704	NPOC	07/01/94		29.60	mg/L	94-06633	
WNW0704	NPOC	10/05/94	ND < 1.00	1.00	mg/L	94-11050	
WNW0704	TOX	01/16/91		29.00	µg/L	91-00429	
WNW0704	TOX	02/21/91		30.00	µg/L	91-01343	
WNW0704	TOX	05/06/91		47.00	µg/L	91-03392	
WNW0704	TOX	06/10/91		33.00	µg/L	91-04952	
WNW0704	TOX	08/02/91		33.00	µg/L	91-06410	
WNW0704	TOX	09/09/91		24.00	µg/L	91-07966	
WNW0704	TOX	10/14/91		37.00	µg/L	91-09309	
WNW0704	TOX	12/02/91		47.00	µg/L	91-11667	J
WNW0704	TOX	02/05/92		36.00	µg/L	92-00160	
WNW0704	TOX	03/16/92		26.40	µg/L	92-02183	
WNW0704	TOX	04/29/92		18.40	µg/L	92-04277	
WNW0704	TOX	08/10/92		20.40	µg/L	92-07501	
WNW0704	TOX	08/24/92		28.40	µg/L	92-09049	
WNW0704	TOX	10/05/92		24.30	µg/L	92-10648	
WNW0704	TOX	10/05/92		24.40	µg/L	92-10629	
WNW0704	TOX	11/02/92		43.00	µg/L	92-11652	
WNW0704	TOX	12/04/92		41.10	µg/L	92-12980	
WNW0704	TOX	01/11/93		18.40	µg/L	93-00202	
WNW0704	TOX	01/11/93		17.10	µg/L	93-00237	
WNW0704	TOX	02/17/93		25.50	µg/L	93-01873	
WNW0704	TOX	04/19/93		17.20	µg/L	93-03815	
WNW0704	TOX	05/24/93		17.60	µg/L	93-05649	
WNW0704	TOX	07/12/93		20.20	µg/L	93-07036	
WNW0704	TOX	11/08/93		35.50	µg/L	93-11718	
WNW0704	TOX	02/14/94		20.70	µg/L	94-00304	
WNW0704	TOX	05/04/94		17.80	µg/L	94-03449	
WNW0704	TOX	07/01/94		23.30	µg/L	94-06633	
WNW0704	TOX	10/05/94		48.00	µg/L	94-11042	J
WNW0704	pH	01/16/91		6.35	N/A	91-00426	
WNW0704	pH	01/16/91		6.43	N/A	91-00426	
WNW0704	pH	02/21/91		6.23	N/A	91-01340	
WNW0704	pH	02/21/91		6.24	N/A	91-01340	
WNW0704	pH	05/06/91		6.53	N/A	91-03389	
WNW0704	pH	06/10/91		6.17	N/A	91-04949	
WNW0704	pH	07/22/91		6.30	N/A	91-06406	
WNW0704	pH	07/22/91		6.21	N/A	91-06406	
WNW0704	pH	09/09/91		6.44	N/A	91-07962	
WNW0704	pH	09/09/91		6.42	N/A	91-07962	
WNW0704	pH	10/14/91		6.24	N/A	91-09306	
WNW0704	pH	10/14/91		6.07	N/A	91-09306	

Groundwater Contamination Indicator Parameter Data  
at the CPCWSA for 1991 - 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Real_Data	Units	Sample_ID	Flags
WNW0704	pH	12/02/91		6.53	N/A	91-11663	
WNW0704	pH	12/02/91		6.53	N/A	91-11663	
WNW0704	pH	02/05/92		6.34	N/A	92-00159	
WNW0704	pH	02/05/92		6.26	N/A	92-00159	
WNW0704	pH	03/16/92		6.30	N/A	92-02182	
WNW0704	pH	03/16/92		6.58	N/A	92-02182	
WNW0704	pH	04/29/92		6.34	N/A	92-04276	
WNW0704	pH	04/29/92		6.44	N/A	92-04276	
WNW0704	pH	08/10/92		6.41	N/A	92-07500	
WNW0704	pH	08/10/92		6.38	N/A	92-07500	
WNW0704	pH	08/24/92		6.98	N/A	92-09048	
WNW0704	pH	08/24/92		6.84	N/A	92-09048	
WNW0704	pH	10/05/92		6.36	N/A	92-10628	
WNW0704	pH	10/05/92		6.35	N/A	92-10628	
WNW0704	pH	11/02/92		6.38	N/A	92-11651	
WNW0704	pH	11/02/92		6.28	N/A	92-11651	
WNW0704	pH	12/04/92		6.26	N/A	92-12979	
WNW0704	pH	12/04/92		6.24	N/A	92-12979	
WNW0704	pH	01/11/93		6.20	N/A	93-00201	
WNW0704	pH	01/11/93		6.24	N/A	93-00201	
WNW0704	pH	02/17/93		6.35	N/A	93-01872	
WNW0704	pH	02/17/93		6.34	N/A	93-01872	
WNW0704	pH	04/19/93		6.31	N/A	93-03814	
WNW0704	pH	04/19/93		6.30	N/A	93-03814	
WNW0704	pH	05/24/93		6.41	N/A	93-05648	
WNW0704	pH	05/24/93		6.40	N/A	93-05648	
WNW0704	pH	07/12/93		6.37	N/A	93-07035	
WNW0704	pH	07/12/93		6.33	N/A	93-07035	
WNW0704	pH	11/08/93		6.49	N/A	93-11717	
WNW0704	pH	11/08/93		6.35	N/A	93-11717	
WNW0704	pH	02/14/94		6.35	N/A	94-00303	
WNW0704	pH	02/14/94		6.32	N/A	94-00303	
WNW0704	pH	05/04/94		6.61	N/A	94-03448	
WNW0704	pH	05/04/94		6.56	N/A	94-03448	
WNW0704	pH	07/01/94		6.30	N/A	94-06632	
WNW0704	pH	07/01/94		6.34	N/A	94-06632	
WNW0704	pH	10/05/94		6.30	N/A	94-11041	
WNW0704	pH	10/05/94		6.23	N/A	94-11041	
WNW0705	Cond	01/17/91		437.00	µmhos/cm	91-00431	
WNW0705	Cond	01/17/91		435.00	µmhos/cm	91-00431	
WNW0705	Cond	02/21/91		393.00	µmhos/cm	91-01345	
WNW0705	Cond	02/21/91		218.00	µmhos/cm	91-01345	
WNW0705	Cond	05/06/91		415.00	µmhos/cm	91-03393	
WNW0705	Cond	06/10/91		469.00	µmhos/cm	91-04954	
WNW0705	Cond	07/22/91		517.00	µmhos/cm	91-06411	

Groundwater Contamination Indicator Parameter Data  
at the CPCWSA for 1991 - 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Real_Data	Units	Sample_ID	Flags
WNW0705	Cond	07/22/91		547.00	µmhos/cm	91-06411	
WNW0705	Cond	09/09/91		522.00	µmhos/cm	91-07967	
WNW0705	Cond	09/09/91		512.00	µmhos/cm	91-07967	
WNW0705	Cond	10/14/91		618.00	µmhos/cm	91-09310	
WNW0705	Cond	10/14/91		638.00	µmhos/cm	91-09310	
WNW0705	Cond	12/02/91		633.00	µmhos/cm	91-11675	
WNW0705	Cond	12/02/91		593.00	µmhos/cm	91-11675	
WNW0705	Cond	02/05/92		468.00	µmhos/cm	92-00163	
WNW0705	Cond	02/05/92		441.00	µmhos/cm	92-00163	
WNW0705	Cond	03/16/92		487.00	µmhos/cm	92-02193	
WNW0705	Cond	03/16/92		277.00	µmhos/cm	92-02193	
WNW0705	Cond	04/29/92		430.00	µmhos/cm	92-04280	
WNW0705	Cond	04/29/92		429.00	µmhos/cm	92-04280	
WNW0705	Cond	08/10/92		471.00	µmhos/cm	92-07512	
WNW0705	Cond	08/10/92		483.00	µmhos/cm	92-07512	
WNW0705	Cond	08/24/92		505.00	µmhos/cm	92-09052	
WNW0705	Cond	08/24/92		516.00	µmhos/cm	92-09052	
WNW0705	Cond	10/05/92		553.00	µmhos/cm	92-10632	
WNW0705	Cond	10/05/92		576.00	µmhos/cm	92-10632	
WNW0705	Cond	11/02/92		344.00	µmhos/cm	92-11655	
WNW0705	Cond	11/02/92		309.00	µmhos/cm	92-11655	
WNW0705	Cond	12/03/92		524.00	µmhos/cm	92-12992	
WNW0705	Cond	12/03/92		491.00	µmhos/cm	92-12992	
WNW0705	Cond	01/11/93		453.00	µmhos/cm	93-00205	
WNW0705	Cond	01/11/93		442.00	µmhos/cm	93-00205	
WNW0705	Cond	02/17/93		461.00	µmhos/cm	93-01882	
WNW0705	Cond	02/17/93		441.00	µmhos/cm	93-01882	
WNW0705	Cond	04/19/93		478.00	µmhos/cm	93-03818	
WNW0705	Cond	04/19/93		459.00	µmhos/cm	93-03818	
WNW0705	Cond	05/24/93		490.00	µmhos/cm	93-05652	
WNW0705	Cond	05/24/93		518.00	µmhos/cm	93-05652	
WNW0705	Cond	07/12/93		532.00	µmhos/cm	93-07039	
WNW0705	Cond	11/05/93		548.00	µmhos/cm	93-11588	
WNW0705	Cond	11/05/93		538.00	µmhos/cm	93-11588	
WNW0705	Cond	02/14/94		428.00	µmhos/cm	94-00306	
WNW0705	Cond	02/14/94		468.00	µmhos/cm	94-00306	
WNW0705	Cond	05/04/94		500.00	µmhos/cm	94-03464	
WNW0705	Cond	05/04/94		486.00	µmhos/cm	94-03464	
WNW0705	Cond	07/01/94		504.00	µmhos/cm	94-06635	
WNW0705	Cond	07/01/94		483.00	µmhos/cm	94-06635	
WNW0705	Cond	10/04/94		485.00	µmhos/cm	94-11051	
WNW0705	Cond	10/04/94		509.00	µmhos/cm	94-11051	
WNW0705	NPOC	01/17/91		2.40	mg/L	91-00436	
WNW0705	NPOC	02/21/91		13.00	mg/L	91-01349	
WNW0705	NPOC	05/06/91		35.00	mg/L	91-03396	

Groundwater Contamination Indicator Parameter Data  
at the CPCWSA for 1991 - 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Real_Data	Units	Sample_ID	Flags
WNW0705	NPOC	06/10/91		2.00	mg/L	91-04957	
WNW0705	NPOC	07/22/91		6.20	mg/L	91-06415	
WNW0705	NPOC	09/09/91	ND < 1.00	1.00	mg/L	91-07971	
WNW0705	NPOC	10/14/91		22.00	mg/L	91-09313	
WNW0705	NPOC	12/02/91		6.00	mg/L	91-11679	
WNW0705	NPOC	02/05/92		1.90	mg/L	92-00164	
WNW0705	NPOC	03/16/92		1.60	mg/L	92-02194	
WNW0705	NPOC	04/29/92		1.50	mg/L	92-04281	
WNW0705	NPOC	08/10/92		1.50	mg/L	92-07513	J
WNW0705	NPOC	08/24/92		1.70	mg/L	92-09053	
WNW0705	NPOC	10/05/92		1.60	mg/L	92-10633	
WNW0705	NPOC	11/02/92		1.70	mg/L	92-11656	
WNW0705	NPOC	12/03/92		2.00	mg/L	92-12993	
WNW0705	NPOC	01/11/93		1.50	mg/L	93-00206	
WNW0705	NPOC	02/17/93		1.70	mg/L	93-01883	
WNW0705	NPOC	04/19/93		1.10	mg/L	93-03819	
WNW0705	NPOC	05/24/93		1.30	mg/L	93-05653	
WNW0705	NPOC	07/12/93		1.10	mg/L	93-07040	
WNW0705	NPOC	07/12/93		1.00	mg/L	93-07040	
WNW0705	NPOC	11/05/93		1.60	mg/L	93-11589	
WNW0705	NPOC	02/14/94		1.60	mg/L	94-00307	
WNW0705	NPOC	02/14/94		1.60	mg/L	94-00307	
WNW0705	NPOC	05/04/94		1.20	mg/L	94-03465	
WNW0705	NPOC	07/01/94		1.30	mg/L	94-06636	
WNW0705	NPOC	10/04/94		1.00	mg/L	94-11060	
WNW0705	TOX	01/17/91	ND < 5.00	5.00	µg/L	91-00434	
WNW0705	TOX	02/21/91		11.00	µg/L	91-01348	
WNW0705	TOX	05/06/91		130.00	µg/L	91-03396	
WNW0705	TOX	06/10/91		11.00	µg/L	91-04957	
WNW0705	TOX	07/22/91	ND < 5.00	5.00	µg/L	91-06415	
WNW0705	TOX	09/09/91	ND < 5.00	5.00	µg/L	91-07971	
WNW0705	TOX	10/14/91		13.00	µg/L	91-09313	
WNW0705	TOX	12/02/91	ND < 5.00	5.00	µg/L	91-11679	
WNW0705	TOX	02/05/92		5.50	µg/L	92-00164	
WNW0705	TOX	03/16/92		5.30	µg/L	92-02194	
WNW0705	TOX	04/29/92		6.60	µg/L	92-04281	
WNW0705	TOX	08/10/92	ND < 4.00	4.00	µg/L	92-07513	
WNW0705	TOX	08/24/92		4.50	µg/L	92-09053	
WNW0705	TOX	10/05/92	ND < 4.00	4.00	µg/L	92-10633	
WNW0705	TOX	11/02/92	ND < 4.00	4.00	µg/L	92-11656	
WNW0705	TOX	12/03/92	ND < 4.00	4.00	µg/L	92-12993	
WNW0705	TOX	01/11/93		2.20	µg/L	93-00206	
WNW0705	TOX	02/17/93		3.70	µg/L	93-01883	
WNW0705	TOX	04/19/93		2.40	µg/L	93-03819	
WNW0705	TOX	05/24/93		5.80	µg/L	93-05653	

Groundwater Contamination Indicator Parameter Data  
at the CPCWSA for 1991 - 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Real_Data	Units	Sample_ID	Flags
WNW0705	TOX	07/12/93		6.00	µg/L	93-07040	
WNW0705	TOX	11/05/93		7.00	µg/L	93-11589	
WNW0705	TOX	02/14/94		5.30	µg/L	94-00307	
WNW0705	TOX	05/04/94		12.00	µg/L	94-03465	
WNW0705	TOX	07/01/94		3.80	µg/L	94-06636	
WNW0705	TOX	10/04/94		9.60	µg/L	94-11052	
WNW0705	pH	01/17/91		7.55	N/A	91-00431	
WNW0705	pH	01/17/91		7.87	N/A	91-00431	
WNW0705	pH	02/21/91		6.71	N/A	91-01345	
WNW0705	pH	02/21/91		7.37	N/A	91-01345	
WNW0705	pH	05/06/91		7.47	N/A	91-03393	
WNW0705	pH	06/10/91		7.11	N/A	91-04954	
WNW0705	pH	07/22/91		7.25	N/A	91-06411	
WNW0705	pH	07/22/91		7.19	N/A	91-06411	
WNW0705	pH	09/09/91		7.14	N/A	91-07967	
WNW0705	pH	09/09/91		7.33	N/A	91-07967	
WNW0705	pH	10/14/91		7.07	N/A	91-09310	
WNW0705	pH	10/14/91		6.97	N/A	91-09310	
WNW0705	pH	12/02/91		7.38	N/A	91-11675	
WNW0705	pH	12/02/91		7.56	N/A	91-11675	
WNW0705	pH	02/05/92		7.27	N/A	92-00163	
WNW0705	pH	02/05/92		7.22	N/A	92-00163	
WNW0705	pH	03/16/92		6.97	N/A	92-02193	
WNW0705	pH	03/16/92		6.68	N/A	92-02193	
WNW0705	pH	04/29/92		7.27	N/A	92-04280	
WNW0705	pH	04/29/92		7.25	N/A	92-04280	
WNW0705	pH	08/10/92		7.35	N/A	92-07512	
WNW0705	pH	08/10/92		7.29	N/A	92-07512	
WNW0705	pH	08/24/92		7.98	N/A	92-09052	
WNW0705	pH	08/24/92		8.13	N/A	92-09052	
WNW0705	pH	10/05/92		7.22	N/A	92-10632	
WNW0705	pH	10/05/92		7.21	N/A	92-10632	
WNW0705	pH	11/02/92		6.83	N/A	92-11655	
WNW0705	pH	11/02/92		7.16	N/A	92-11655	
WNW0705	pH	12/03/92		7.00	N/A	92-12992	
WNW0705	pH	12/03/92		7.26	N/A	92-12992	
WNW0705	pH	01/11/93		7.17	N/A	93-00205	
WNW0705	pH	01/11/93		7.05	N/A	93-00205	
WNW0705	pH	02/17/93		7.22	N/A	93-01882	
WNW0705	pH	02/17/93		7.30	N/A	93-01882	
WNW0705	pH	04/19/93		7.23	N/A	93-03818	
WNW0705	pH	04/19/93		7.16	N/A	93-03818	
WNW0705	pH	05/24/93		7.28	N/A	93-05652	
WNW0705	pH	05/24/93		7.30	N/A	93-05652	
WNW0705	pH	07/12/93		7.12	N/A	93-07039	

Groundwater Contamination Indicator Parameter Data  
at the CPCWSA for 1991 - 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Real_Data	Units	Sample_ID	Flags
WNW0705	pH	11/05/93		7.28	N/A	93-11588	
WNW0705	pH	11/05/93		7.20	N/A	93-11588	
WNW0705	pH	02/14/94		7.17	N/A	94-00306	
WNW0705	pH	02/14/94		7.27	N/A	94-00306	
WNW0705	pH	05/04/94		7.46	N/A	94-03464	
WNW0705	pH	05/04/94		7.48	N/A	94-03464	
WNW0705	pH	07/01/94		7.29	N/A	94-06635	
WNW0705	pH	07/01/94		7.25	N/A	94-06635	
WNW0705	pH	10/04/94		7.06	N/A	94-11051	
WNW0705	pH	10/04/94		7.29	N/A	94-11051	
WNW0707	Cond	02/21/91		263.00	µmhos/cm	91-01355	
WNW0707	Cond	02/21/91		260.00	µmhos/cm	91-01355	
WNW0707	Cond	05/06/91		303.00	µmhos/cm	91-03401	
WNW0707	Cond	06/10/91		509.00	µmhos/cm	91-04964	
WNW0707	Cond	07/23/91		542.00	µmhos/cm	91-06581	
WNW0707	Cond	07/23/91		520.00	µmhos/cm	91-06581	
WNW0707	Cond	09/09/91		590.00	µmhos/cm	91-07977	
WNW0707	Cond	09/09/91		543.00	µmhos/cm	91-07977	
WNW0707	Cond	10/14/91		569.00	µmhos/cm	91-09318	
WNW0707	Cond	10/14/91		622.00	µmhos/cm	91-09318	
WNW0707	Cond	12/02/91		554.00	µmhos/cm	91-11699	
WNW0707	Cond	12/02/91		398.00	µmhos/cm	91-11699	
WNW0707	Cond	02/05/92		363.00	µmhos/cm	92-00171	
WNW0707	Cond	02/05/92		352.00	µmhos/cm	92-00171	
WNW0707	Cond	03/16/92		335.00	µmhos/cm	92-02215	
WNW0707	Cond	03/16/92		326.00	µmhos/cm	92-02215	
WNW0707	Cond	04/29/92		285.00	µmhos/cm	92-04288	
WNW0707	Cond	04/29/92		267.00	µmhos/cm	92-04288	
WNW0707	Cond	08/10/92		425.00	µmhos/cm	92-07538	
WNW0707	Cond	08/24/92		476.00	µmhos/cm	92-09060	
WNW0707	Cond	08/24/92		511.00	µmhos/cm	92-09060	
WNW0707	Cond	10/05/92		479.00	µmhos/cm	92-10640	
WNW0707	Cond	10/05/92		504.00	µmhos/cm	92-10640	
WNW0707	Cond	11/02/92		432.00	µmhos/cm	92-11663	
WNW0707	Cond	11/02/92		383.00	µmhos/cm	92-11663	
WNW0707	Cond	12/03/92		335.00	µmhos/cm	92-13018	
WNW0707	Cond	12/03/92		325.00	µmhos/cm	92-13018	
WNW0707	Cond	01/11/93		274.00	µmhos/cm	93-00213	
WNW0707	Cond	01/11/93		233.00	µmhos/cm	93-00213	
WNW0707	Cond	02/17/93		386.00	µmhos/cm	93-01902	
WNW0707	Cond	02/17/93		400.00	µmhos/cm	93-01902	
WNW0707	Cond	04/19/93		320.00	µmhos/cm	93-03826	
WNW0707	Cond	04/19/93		320.00	µmhos/cm	93-03826	
WNW0707	Cond	05/24/93		444.00	µmhos/cm	93-05660	

Groundwater Contamination Indicator Parameter Data  
 at the CPCWSA for 1991 - 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Real_Data	Units	Sample_ID	Flags
WNW0707	Cond	05/24/93		493.00	µmhos/cm	93-05660	
WNW0707	Cond	07/13/93		498.00	µmhos/cm	93-07047	
WNW0707	Cond	11/08/93		337.00	µmhos/cm	93-11606	
WNW0707	Cond	11/08/93		374.00	µmhos/cm	93-11606	
WNW0707	Cond	02/14/94		414.00	µmhos/cm	94-00312	
WNW0707	Cond	02/14/94		446.00	µmhos/cm	94-00312	
WNW0707	Cond	05/05/94		392.00	µmhos/cm	94-03482	
WNW0707	Cond	05/05/94		414.00	µmhos/cm	94-03482	
WNW0707	Cond	07/01/94		403.00	µmhos/cm	94-06641	
WNW0707	Cond	07/01/94		368.00	µmhos/cm	94-06641	
WNW0707	Cond	10/04/94		366.00	µmhos/cm	94-11071	
WNW0707	Cond	10/04/94		344.00	µmhos/cm	94-11071	
WNW0707	NPOC	02/21/91		8.50	mg/L	91-01359	
WNW0707	NPOC	05/06/91		24.00	mg/L	91-03404	
WNW0707	NPOC	06/10/91		6.00	mg/L	91-04967	U
WNW0707	NPOC	07/23/91		4.50	mg/L	91-06585	
WNW0707	NPOC	07/23/91		5.30	mg/L	91-06590	
WNW0707	NPOC	09/09/91	ND < 1.00	1.00	mg/L	91-07981	
WNW0707	NPOC	10/14/91		5.40	mg/L	91-09321	
WNW0707	NPOC	12/02/91		5.50	mg/L	91-11703	
WNW0707	NPOC	02/05/92		2.60	mg/L	92-00172	
WNW0707	NPOC	03/16/92		2.50	mg/L	92-02216	
WNW0707	NPOC	04/29/92		2.80	mg/L	92-04289	
WNW0707	NPOC	04/29/92	ND < 1.00	1.00	mg/L	92-04290	
WNW0707	NPOC	04/29/92	ND < 1.00	1.00	mg/L	92-04290	
WNW0707	NPOC	04/29/92		2.80	mg/L	92-04289	
WNW0707	NPOC	08/10/92		2.60	mg/L	92-07539	
WNW0707	NPOC	08/24/92		2.60	mg/L	92-09061	
WNW0707	NPOC	08/24/92		2.60	mg/L	92-09061	
WNW0707	NPOC	10/05/92		2.80	mg/L	92-10641	
WNW0707	NPOC	10/05/92		2.90	mg/L	92-10641	
WNW0707	NPOC	11/02/92		2.70	mg/L	92-11664	
WNW0707	NPOC	11/02/92		2.70	mg/L	92-11664	
WNW0707	NPOC	12/03/92		2.80	mg/L	92-13019	
WNW0707	NPOC	01/11/93		2.60	mg/L	93-00214	
WNW0707	NPOC	02/17/93		2.70	mg/L	93-01903	
WNW0707	NPOC	04/19/93		2.10	mg/L	93-03827	
WNW0707	NPOC	04/19/93		2.10	mg/L	93-03827	
WNW0707	NPOC	05/24/93		2.10	mg/L	93-05661	
WNW0707	NPOC	05/24/93		2.20	mg/L	93-05661	
WNW0707	NPOC	07/13/93		2.00	mg/L	93-07048	
WNW0707	NPOC	07/13/93		2.00	mg/L	93-07048	
WNW0707	NPOC	11/08/93		2.90	mg/L	93-11607	
WNW0707	NPOC	02/14/94		2.80	mg/L	94-00313	
WNW0707	NPOC	02/14/94		2.80	mg/L	94-00313	

Groundwater Contamination Indicator Parameter Data  
at the CPCWSA for 1991 - 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Real_Data	Units	Sample_ID	Flags
WNW0707	NPOC	05/05/94		2.50	mg/L	94-03483	
WNW0707	NPOC	05/05/94		2.60	mg/L	94-03483	
WNW0707	NPOC	07/01/94		2.20	mg/L	94-06642	
WNW0707	NPOC	10/04/94		2.20	mg/L	94-11080	
WNW0707	TOX	02/21/91		15.00	µg/L	91-01358	
WNW0707	TOX	05/06/91		7.90	µg/L	91-03404	
WNW0707	TOX	06/10/91		27.00	µg/L	91-04967	U
WNW0707	TOX	07/23/91		6.00	µg/L	91-06590	
WNW0707	TOX	07/23/91		7.10	µg/L	91-06585	
WNW0707	TOX	09/09/91	ND < 5.00	5.00	µg/L	91-07981	
WNW0707	TOX	10/14/91		6.10	µg/L	91-09321	
WNW0707	TOX	12/02/91	ND < 5.00	5.00	µg/L	91-11703	
WNW0707	TOX	02/05/92		5.00	µg/L	92-00172	
WNW0707	TOX	03/16/92		8.40	µg/L	92-02216	
WNW0707	TOX	04/29/92		5.60	µg/L	92-04289	
WNW0707	TOX	08/10/92		6.10	µg/L	92-07539	
WNW0707	TOX	08/24/92		6.80	µg/L	92-09061	
WNW0707	TOX	10/05/92		6.00	µg/L	92-10641	
WNW0707	TOX	11/02/92		5.20	µg/L	92-11664	
WNW0707	TOX	12/03/92		5.90	µg/L	92-13019	
WNW0707	TOX	01/11/93		5.60	µg/L	93-00214	
WNW0707	TOX	02/17/93		3.20	µg/L	93-01903	
WNW0707	TOX	04/19/93		3.80	µg/L	93-03827	
WNW0707	TOX	05/24/93		9.00	µg/L	93-05661	
WNW0707	TOX	07/13/93		9.50	µg/L	93-07048	
WNW0707	TOX	11/08/93		8.00	µg/L	93-11607	
WNW0707	TOX	02/14/94		8.20	µg/L	94-00313	
WNW0707	TOX	05/05/94		10.60	µg/L	94-03483	
WNW0707	TOX	07/01/94		7.40	µg/L	94-06642	
WNW0707	TOX	10/04/94		9.80	µg/L	94-11072	
WNW0707	pH	02/21/91		6.80	N/A	91-01355	
WNW0707	pH	02/21/91		6.84	N/A	91-01355	
WNW0707	pH	05/06/91		6.72	N/A	91-03401	
WNW0707	pH	06/10/91		7.24	N/A	91-04964	
WNW0707	pH	07/23/91		7.03	N/A	91-06581	
WNW0707	pH	07/23/91		6.80	N/A	91-06581	
WNW0707	pH	09/09/91		6.86	N/A	91-07977	
WNW0707	pH	09/09/91		7.10	N/A	91-07977	
WNW0707	pH	10/14/91		6.81	N/A	91-09318	
WNW0707	pH	10/14/91		6.95	N/A	91-09318	
WNW0707	pH	12/02/91		7.30	N/A	91-11699	
WNW0707	pH	12/02/91		7.12	N/A	91-11699	
WNW0707	pH	02/05/92		6.62	N/A	92-00171	
WNW0707	pH	02/05/92		6.52	N/A	92-00171	
WNW0707	pH	03/16/92		7.42	N/A	92-02215	

Groundwater Contamination Indicator Parameter Data  
 at the CPCWSA for 1991 - 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Real_Data	Units	Sample_ID	Flags
WNW0707	pH	03/16/92		7.30	N/A	92-02215	
WNW0707	pH	04/29/92		6.52	N/A	92-04288	
WNW0707	pH	04/29/92		6.47	N/A	92-04288	
WNW0707	pH	08/10/92		6.60	N/A	92-07538	
WNW0707	pH	08/24/92		7.45	N/A	92-09060	
WNW0707	pH	08/24/92		6.78	N/A	92-09060	
WNW0707	pH	10/05/92		6.74	N/A	92-10640	
WNW0707	pH	10/05/92		6.67	N/A	92-10640	
WNW0707	pH	11/02/92		6.59	N/A	92-11663	
WNW0707	pH	11/02/92		6.39	N/A	92-11663	
WNW0707	pH	12/03/92		6.41	N/A	92-13018	
WNW0707	pH	12/03/92		6.25	N/A	92-13018	
WNW0707	pH	01/11/93		6.44	N/A	93-00213	
WNW0707	pH	01/11/93		6.28	N/A	93-00213	
WNW0707	pH	02/17/93		7.17	N/A	93-01902	
WNW0707	pH	02/17/93		6.85	N/A	93-01902	
WNW0707	pH	04/19/93		6.44	N/A	93-03826	
WNW0707	pH	04/19/93		6.43	N/A	93-03826	
WNW0707	pH	05/24/93		6.92	N/A	93-05660	
WNW0707	pH	05/24/93		6.83	N/A	93-05660	
WNW0707	pH	07/13/93		6.65	N/A	93-07047	
WNW0707	pH	11/08/93		6.41	N/A	93-11606	
WNW0707	pH	11/08/93		6.25	N/A	93-11606	
WNW0707	pH	02/14/94		6.85	N/A	94-00312	
WNW0707	pH	02/14/94		6.70	N/A	94-00312	
WNW0707	pH	05/05/94		6.53	N/A	94-03482	
WNW0707	pH	05/05/94		6.71	N/A	94-03482	
WNW0707	pH	07/01/94		6.13	N/A	94-06641	
WNW0707	pH	07/01/94		6.22	N/A	94-06641	
WNW0707	pH	10/04/94		6.17	N/A	94-11071	
WNW0707	pH	10/04/94		6.27	N/A	94-11071	

BACKGROUND

WNW0301	Cond	02/07/91		641.00	μmhos/cm	91-00988	
WNW0301	Cond	05/01/91		630.00	μmhos/cm	91-03294	
WNW0301	Cond	05/22/91		731.00	μmhos/cm	91-04101	
WNW0301	Cond	07/17/91		665.00	μmhos/cm	91-06188	
WNW0301	Cond	08/26/91		888.00	μmhos/cm	91-07585	
WNW0301	Cond	08/26/91		779.00	μmhos/cm	91-07585	
WNW0301	Cond	10/30/91		692.00	μmhos/cm	91-09657	
WNW0301	Cond	10/30/91		698.00	μmhos/cm	91-09657	
WNW0301	Cond	11/25/91		954.00	μmhos/cm	91-11251	
WNW0301	Cond	11/25/91		911.00	μmhos/cm	91-11251	
WNW0301	Cond	01/22/92		666.00	μmhos/cm	92-00083	

Groundwater Contamination Indicator Parameter Data  
at the CPCWSA for 1991 - 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Real_Data	Units	Sample_ID	Flags
WNW0301	Cond	01/22/92		693.00	μmhos/cm	92-00083	
WNW0301	Cond	03/04/92		773.00	μmhos/cm	92-01937	
WNW0301	Cond	03/04/92		756.00	μmhos/cm	92-01937	
WNW0301	Cond	04/15/92		771.00	μmhos/cm	92-04021	
WNW0301	Cond	04/15/92		739.00	μmhos/cm	92-04021	
WNW0301	Cond	07/24/92		699.00	μmhos/cm	92-06793	
WNW0301	Cond	07/24/92		709.00	μmhos/cm	92-06793	
WNW0301	Cond	08/31/92		590.00	μmhos/cm	92-09242	
WNW0301	Cond	08/31/92		639.00	μmhos/cm	92-09242	
WNW0301	Cond	10/13/92		754.00	μmhos/cm	92-10867	
WNW0301	Cond	10/13/92		922.00	μmhos/cm	92-10867	
WNW0301	Cond	11/09/92		624.00	μmhos/cm	92-11703	
WNW0301	Cond	11/09/92		624.00	μmhos/cm	92-11703	
WNW0301	Cond	12/09/92		649.00	μmhos/cm	92-13377	
WNW0301	Cond	12/09/92		622.00	μmhos/cm	92-13377	
WNW0301	Cond	01/18/93		690.00	μmhos/cm	93-00365	
WNW0301	Cond	01/18/93		680.00	μmhos/cm	93-00365	
WNW0301	Cond	02/25/93		896.00	μmhos/cm	93-02048	
WNW0301	Cond	02/25/93		825.00	μmhos/cm	93-02048	
WNW0301	Cond	04/28/93		933.00	μmhos/cm	93-03882	
WNW0301	Cond	04/28/93		919.00	μmhos/cm	93-03882	
WNW0301	Cond	06/02/93		871.00	μmhos/cm	93-05829	
WNW0301	Cond	06/02/93		1077.00	μmhos/cm	93-05829	
WNW0301	Cond	07/19/93		804.00	μmhos/cm	93-07195	
WNW0301	Cond	07/19/93		753.00	μmhos/cm	93-07195	
WNW0301	Cond	10/29/93		711.00	μmhos/cm	93-11084	
WNW0301	Cond	10/29/93		724.00	μmhos/cm	93-11084	
WNW0301	Cond	02/21/94		951.00	μmhos/cm	94-01209	
WNW0301	Cond	02/21/94		973.00	μmhos/cm	94-01209	
WNW0301	Cond	05/16/94		1140.00	μmhos/cm	94-03809	
WNW0301	Cond	05/16/94		1120.00	μmhos/cm	94-03809	
WNW0301	NPOC	05/01/91		1.00	mg/L	91-03297	
WNW0301	NPOC	05/22/91		1.60	mg/L	91-04105	
WNW0301	NPOC	07/17/91		1.50	mg/L	91-06192	
WNW0301	NPOC	08/26/91		1.60	mg/L	91-07589	
WNW0301	NPOC	10/30/91		1.60	mg/L	91-09660	
WNW0301	NPOC	11/25/91		2.80	mg/L	91-11255	J
WNW0301	NPOC	01/22/92		0.80	mg/L	92-00084	
WNW0301	NPOC	03/04/92		0.90	mg/L	92-01938	
WNW0301	NPOC	04/15/92		0.80	mg/L	92-04022	
WNW0301	NPOC	04/15/92		1.10	mg/L	92-04085	
WNW0301	NPOC	07/24/92		1.00	mg/L	92-06794	
WNW0301	NPOC	08/31/92		1.20	mg/L	92-09243	
WNW0301	NPOC	10/13/92		0.80	mg/L	92-10868	
WNW0301	NPOC	10/13/92		0.90	mg/L	92-10868	

Groundwater Contamination Indicator Parameter Data  
at the CPCWSA for 1991 - 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Real_Data	Units	Sample_ID	Flags
WNW0301	NPOC	11/09/92		0.70	mg/L	92-11704	
WNW0301	NPOC	12/09/92		0.90	mg/L	92-13378	
WNW0301	NPOC	01/18/93		0.70	mg/L	93-00366	
WNW0301	NPOC	02/25/93		0.80	mg/L	93-02049	
WNW0301	NPOC	04/28/93		0.90	mg/L	93-03883	
WNW0301	NPOC	06/02/93		0.90	mg/L	93-05830	
WNW0301	NPOC	07/19/93		1.00	mg/L	93-07196	
WNW0301	NPOC	10/29/93		0.70	mg/L	93-11085	
WNW0301	NPOC	02/21/94		0.80	mg/L	94-01210	
WNW0301	NPOC	05/16/94		1.00	mg/L	94-03811	
WNW0301	NPOC	05/16/94		0.70	mg/L	94-03811	
WNW0301	TOX	05/01/91		16.00	µg/L	91-03297	
WNW0301	TOX	05/22/91		13.00	µg/L	91-04105	J
WNW0301	TOX	07/17/91		10.00	µg/L	91-06192	
WNW0301	TOX	08/26/91		31.00	µg/L	91-07589	
WNW0301	TOX	10/30/91		14.00	µg/L	91-09660	
WNW0301	TOX	11/25/91	ND < 5.000	5.00	µg/L	91-11255	
WNW0301	TOX	01/22/92	ND < 4.000	4.00	µg/L	92-00084	
WNW0301	TOX	03/04/92		5.70	µg/L	92-01938	
WNW0301	TOX	04/15/92		10.10	µg/L	92-04022	
WNW0301	TOX	04/15/92		10.60	µg/L	92-04085	
WNW0301	TOX	07/24/92	ND < 4.000	4.00	µg/L	92-06794	
WNW0301	TOX	08/31/92	ND < 4.000	4.00	µg/L	92-09243	
WNW0301	TOX	10/13/92	ND < 4.000	4.00	µg/L	92-10868	
WNW0301	TOX	11/09/92	ND < 4.000	4.00	µg/L	92-11704	
WNW0301	TOX	12/09/92	ND < 4.000	4.00	µg/L	92-13378	
WNW0301	TOX	01/18/93		33.00	µg/L	93-00366	
WNW0301	TOX	02/25/93		32.00	µg/L	93-02049	
WNW0301	TOX	04/28/93		317.60	µg/L	93-03883	
WNW0301	TOX	06/02/93	ND < 6.000	6.00	µg/L	93-05830	
WNW0301	TOX	07/19/93		5.20	µg/L	93-07196	
WNW0301	TOX	10/29/93	ND < 2.000	2.00	µg/L	93-11085	
WNW0301	TOX	02/21/94		2.00	µg/L	94-01210	
WNW0301	TOX	05/16/94		2.30	µg/L	94-03811	
WNW0301	pH	02/07/91		7.43	N/A	91-00988	
WNW0301	pH	05/01/91		7.32	N/A	91-03294	
WNW0301	pH	05/22/91		7.44	N/A	91-04101	
WNW0301	pH	07/17/91		7.18	N/A	91-06188	
WNW0301	pH	08/26/91		7.12	N/A	91-07585	
WNW0301	pH	08/26/91		7.13	N/A	91-07585	
WNW0301	pH	10/30/91		6.94	N/A	91-09657	
WNW0301	pH	10/30/91		7.07	N/A	91-09657	
WNW0301	pH	11/25/91		7.26	N/A	91-11251	
WNW0301	pH	11/25/91		7.19	N/A	91-11251	
WNW0301	pH	01/22/92		6.98	N/A	92-00083	

Groundwater Contamination Indicator Parameter Data  
at the CPCWSA for 1991 - 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Real_Data	Units	Sample_ID	Flags
WNW0301	pH	01/22/92		7.10	N/A	92-00083	
WNW0301	pH	03/04/92		7.03	N/A	92-01937	
WNW0301	pH	03/04/92		6.98	N/A	92-01937	
WNW0301	pH	04/15/92		7.34	N/A	92-04021	
WNW0301	pH	04/15/92		7.23	N/A	92-04021	
WNW0301	pH	07/24/92		6.86	N/A	92-06793	
WNW0301	pH	07/24/92		6.98	N/A	92-06793	
WNW0301	pH	08/31/92		6.78	N/A	92-09242	
WNW0301	pH	08/31/92		6.94	N/A	92-09242	
WNW0301	pH	10/13/92		7.04	N/A	92-10867	
WNW0301	pH	10/13/92		7.08	N/A	92-10867	
WNW0301	pH	11/09/92		6.90	N/A	92-11703	
WNW0301	pH	11/09/92		6.88	N/A	92-11703	
WNW0301	pH	12/09/92		6.84	N/A	92-13377	
WNW0301	pH	12/09/92		6.82	N/A	92-13377	
WNW0301	pH	01/18/93		7.00	N/A	93-00365	
WNW0301	pH	01/18/93		7.02	N/A	93-00365	
WNW0301	pH	02/25/93		7.08	N/A	93-02048	
WNW0301	pH	02/25/93		7.13	N/A	93-02048	
WNW0301	pH	04/28/93		6.86	N/A	93-03882	
WNW0301	pH	04/28/93		6.87	N/A	93-03882	
WNW0301	pH	06/02/93		6.93	N/A	93-05829	
WNW0301	pH	06/02/93		6.98	N/A	93-05829	
WNW0301	pH	07/19/93		6.91	N/A	93-07195	
WNW0301	pH	07/19/93		6.98	N/A	93-07195	
WNW0301	pH	10/29/93		6.92	N/A	93-11084	
WNW0301	pH	10/29/93		7.00	N/A	93-11084	
WNW0301	pH	02/21/94		7.22	N/A	94-01209	
WNW0301	pH	02/21/94		7.11	N/A	94-01209	
WNW0301	pH	05/16/94		7.62	N/A	94-03809	
WNW0301	pH	05/16/94		7.75	N/A	94-03809	
WNW0401	Cond	02/07/91		2210.00	μmhos/cm	91-00992	
WNW0401	Cond	02/07/91		2200.00	μmhos/cm	91-00992	
WNW0401	Cond	05/01/91		1176.00	μmhos/cm	91-03306	
WNW0401	Cond	05/01/91		1175.00	μmhos/cm	91-03306	
WNW0401	Cond	05/21/91		2120.00	μmhos/cm	91-04137	
WNW0401	Cond	07/15/91		1006.00	μmhos/cm	91-06208	
WNW0401	Cond	08/26/91		1155.00	μmhos/cm	91-07603	
WNW0401	Cond	08/26/91		1164.00	μmhos/cm	91-07603	
WNW0401	Cond	10/29/91		1153.00	μmhos/cm	91-09673	
WNW0401	Cond	10/29/91		1133.00	μmhos/cm	91-09673	
WNW0401	Cond	11/27/91		880.00	μmhos/cm	91-11299	J
WNW0401	Cond	11/27/91		975.00	μmhos/cm	91-11299	J
WNW0401	Cond	01/22/92		1316.00	μmhos/cm	92-00099	

Groundwater Contamination Indicator Parameter Data  
at the CPCWSA for 1991 - 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Real_Data	Units	Sample_ID	Flags
WNW0401	Cond	01/22/92		1252.00	μmhos/cm	92-00099	
WNW0401	Cond	03/04/92		1932.00	μmhos/cm	92-01981	
WNW0401	Cond	03/04/92		2010.00	μmhos/cm	92-01981	
WNW0401	Cond	04/13/92		2040.00	μmhos/cm	92-04037	
WNW0401	Cond	04/13/92		2000.00	μmhos/cm	92-04037	
WNW0401	Cond	07/16/92		1485.00	μmhos/cm	92-06923	
WNW0401	Cond	07/16/92		1479.00	μmhos/cm	92-06923	
WNW0401	Cond	08/26/92		1712.00	μmhos/cm	92-09007	
WNW0401	Cond	08/26/92		1714.00	μmhos/cm	92-09007	
WNW0401	Cond	10/05/92		1557.00	μmhos/cm	92-10543	
WNW0401	Cond	10/05/92		1579.00	μmhos/cm	92-10543	
WNW0401	Cond	11/04/92		1550.00	μmhos/cm	92-11595	
WNW0401	Cond	11/04/92		1474.00	μmhos/cm	92-11595	
WNW0401	Cond	12/07/92		1368.00	μmhos/cm	92-12849	
WNW0401	Cond	12/07/92		1407.00	μmhos/cm	92-12849	
WNW0401	Cond	01/13/93		1384.00	μmhos/cm	93-00161	
WNW0401	Cond	01/13/93		1278.00	μmhos/cm	93-00161	
WNW0401	Cond	02/18/93		1348.00	μmhos/cm	93-01742	
WNW0401	Cond	02/18/93		1321.00	μmhos/cm	93-01742	
WNW0401	Cond	04/21/93		1972.00	μmhos/cm	93-03773	
WNW0401	Cond	04/21/93		1731.00	μmhos/cm	93-03773	
WNW0401	Cond	05/24/93		1726.00	μmhos/cm	93-05608	
WNW0401	Cond	05/24/93		1673.00	μmhos/cm	93-05608	
WNW0401	Cond	07/12/93		2210.00	μmhos/cm	93-06975	
WNW0401	Cond	07/12/93		2100.00	μmhos/cm	93-06975	
WNW0401	Cond	11/04/93		2040.00	μmhos/cm	93-11500	
WNW0401	Cond	11/04/93		1726.00	μmhos/cm	93-11500	
WNW0401	Cond	02/21/94		4070.00	μmhos/cm	94-00263	
WNW0401	Cond	02/21/94		3960.00	μmhos/cm	94-00263	
WNW0401	Cond	05/04/94		2610.00	μmhos/cm	94-02988	
WNW0401	Cond	05/04/94		2460.00	μmhos/cm	94-02988	
WNW0401	NPOC	05/01/91		1.90	mg/L	91-03309	
WNW0401	NPOC	05/21/91		8.00	mg/L	91-04141	
WNW0401	NPOC	07/15/91		10.00	mg/L	91-06212	
WNW0401	NPOC	08/26/91		2.60	mg/L	91-07607	
WNW0401	NPOC	10/29/91	ND < 1.000	1.00	mg/L	91-09676	
WNW0401	NPOC	11/27/91		2.90	mg/L	91-11303	
WNW0401	NPOC	01/22/92		0.70	mg/L	92-00100	
WNW0401	NPOC	03/04/92		0.60	mg/L	92-02888	
WNW0401	NPOC	03/04/92		0.60	mg/L	92-01982	
WNW0401	NPOC	04/13/92		0.90	mg/L	92-04038	
WNW0401	NPOC	07/16/92		1.30	mg/L	92-06924	
WNW0401	NPOC	07/16/92		1.10	mg/L	92-06924	
WNW0401	NPOC	08/26/92		0.70	mg/L	92-09008	
WNW0401	NPOC	10/05/92		0.60	mg/L	92-10544	

Groundwater Contamination Indicator Parameter Data  
at the CPCWSA for 1991 - 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Real_Data	Units	Sample_ID	Flags
WNW0401	NPOC	11/04/92		0.70	mg/L	92-11596	
WNW0401	NPOC	12/07/92		0.60	mg/L	92-13224	
WNW0401	NPOC	12/07/92		0.70	mg/L	92-12850	
WNW0401	NPOC	01/13/93		0.80	mg/L	93-00162	
WNW0401	NPOC	02/18/93		0.60	mg/L	93-01912	
WNW0401	NPOC	02/18/93		0.60	mg/L	93-01743	
WNW0401	NPOC	04/21/93		0.60	mg/L	93-03774	
WNW0401	NPOC	05/24/93		0.80	mg/L	93-05609	
WNW0401	NPOC	07/12/93		0.80	mg/L	93-06976	
WNW0401	NPOC	11/04/93		0.90	mg/L	93-11501	
WNW0401	NPOC	02/21/94		1.80	mg/L	94-00264	
WNW0401	NPOC	05/04/94		0.80	mg/L	94-02989	
WNW0401	TOX	05/01/91		46.00	µg/L	91-03309	
WNW0401	TOX	05/21/91		44.00	µg/L	91-04141	J
WNW0401	TOX	07/15/91		13.00	µg/L	91-06212	
WNW0401	TOX	08/26/91	ND < 5.000	5.00	µg/L	91-07607	J
WNW0401	TOX	10/29/91		7.40	µg/L	91-09676	
WNW0401	TOX	11/27/91		6.10	µg/L	91-11303	J
WNW0401	TOX	01/22/92		6.20	µg/L	92-00100	
WNW0401	TOX	03/04/92	ND < 4.000	4.00	µg/L	92-02888	
WNW0401	TOX	03/04/92		9.80	µg/L	92-01982	
WNW0401	TOX	04/13/92		18.00	µg/L	92-04038	
WNW0401	TOX	07/16/92		6.10	µg/L	92-07850	
WNW0401	TOX	08/26/92		6.20	µg/L	92-09008	
WNW0401	TOX	10/05/92		6.40	µg/L	92-10544	
WNW0401	TOX	11/04/92		6.20	µg/L	92-11596	
WNW0401	TOX	12/07/92	ND < 4.000	4.00	µg/L	92-12850	
WNW0401	TOX	12/07/92		4.80	µg/L	92-13224	
WNW0401	TOX	01/13/93		15.40	µg/L	93-00162	
WNW0401	TOX	02/18/93		4.50	µg/L	93-01912	
WNW0401	TOX	02/18/93		10.60	µg/L	93-01743	
WNW0401	TOX	04/21/93		19.80	µg/L	93-03774	
WNW0401	TOX	05/24/93		7.40	µg/L	93-05609	
WNW0401	TOX	07/12/93		15.80	µg/L	93-06976	
WNW0401	TOX	11/04/93		12.80	µg/L	93-11501	
WNW0401	TOX	02/21/94		22.40	µg/L	94-00264	
WNW0401	TOX	05/04/94		17.80	µg/L	94-02989	
WNW0401	pH	02/07/91		6.34	N/A	91-00992	
WNW0401	pH	02/07/91		6.43	N/A	91-00992	
WNW0401	pH	05/01/91		6.92	N/A	91-03306	
WNW0401	pH	05/01/91		6.95	N/A	91-03306	
WNW0401	pH	05/21/91		6.91	N/A	91-04137	
WNW0401	pH	07/15/91		6.18	N/A	91-06208	
WNW0401	pH	08/26/91		6.94	N/A	91-07603	
WNW0401	pH	08/26/91		6.95	N/A	91-07603	

Groundwater Contamination Indicator Parameter Data  
 at the CPCWSA for 1991 - 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Real_Data	Units	Sample_ID	Flags
WNW0401	pH	10/29/91		6.81	N/A	91-09673	
WNW0401	pH	10/29/91		6.86	N/A	91-09673	
WNW0401	pH	11/27/91		6.39	N/A	91-11299	
WNW0401	pH	11/27/91		6.68	N/A	91-11299	
WNW0401	pH	01/22/92		6.56	N/A	92-00099	
WNW0401	pH	01/22/92		6.58	N/A	92-00099	
WNW0401	pH	03/04/92		6.61	N/A	92-01981	
WNW0401	pH	03/04/92		6.85	N/A	92-01981	
WNW0401	pH	04/13/92		6.70	N/A	92-04037	
WNW0401	pH	04/13/92		6.84	N/A	92-04037	
WNW0401	pH	07/16/92		6.15	N/A	92-06923	
WNW0401	pH	07/16/92		6.14	N/A	92-06923	
WNW0401	pH	08/26/92		6.90	N/A	92-09007	
WNW0401	pH	08/26/92		6.97	N/A	92-09007	
WNW0401	pH	10/05/92		6.77	N/A	92-10543	
WNW0401	pH	10/05/92		6.83	N/A	92-10543	
WNW0401	pH	11/04/92		6.87	N/A	92-11595	
WNW0401	pH	11/04/92		6.87	N/A	92-11595	
WNW0401	pH	12/07/92		6.79	N/A	92-12849	
WNW0401	pH	12/07/92		6.77	N/A	92-12849	
WNW0401	pH	01/13/93		6.76	N/A	93-00161	
WNW0401	pH	01/13/93		6.62	N/A	93-00161	
WNW0401	pH	02/18/93		7.06	N/A	93-01742	
WNW0401	pH	02/18/93		7.13	N/A	93-01742	
WNW0401	pH	04/21/93		6.99	N/A	93-03773	
WNW0401	pH	04/21/93		6.72	N/A	93-03773	
WNW0401	pH	05/24/93		7.18	N/A	93-05608	
WNW0401	pH	05/24/93		7.23	N/A	93-05608	
WNW0401	pH	07/12/93		6.40	N/A	93-06975	
WNW0401	pH	07/12/93		6.25	N/A	93-06975	
WNW0401	pH	11/04/93		6.71	N/A	93-11500	
WNW0401	pH	11/04/93		6.59	N/A	93-11500	
WNW0401	pH	02/21/94		6.14	N/A	94-00263	
WNW0401	pH	02/21/94		6.19	N/A	94-00263	
WNW0401	pH	05/04/94		7.04	N/A	94-02988	
WNW0401	pH	05/04/94		7.14	N/A	94-02988	
WNW0706	Cond	02/19/91		594.00	µmhos/cm	91-01250	
WNW0706	Cond	02/19/91		612.00	µmhos/cm	91-01250	
WNW0706	Cond	05/06/91		977.00	µmhos/cm	91-03397	
WNW0706	Cond	06/10/91		754.00	µmhos/cm	91-04959	
WNW0706	Cond	07/22/91		590.00	µmhos/cm	91-06416	
WNW0706	Cond	09/09/91		771.00	µmhos/cm	91-07972	
WNW0706	Cond	09/09/91		1318.00	µmhos/cm	91-07972	
WNW0706	Cond	10/14/91		510.00	µmhos/cm	91-09314	

Groundwater Contamination Indicator Parameter Data  
 at the CPCWSA for 1991 - 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Real_Data	Units	Sample_ID	Flags
WNW0706	Cond	10/14/91		482.00	μmhos/cm	91-09314	
WNW0706	Cond	12/02/91		487.00	μmhos/cm	91-11687	
WNW0706	Cond	12/02/91		499.00	μmhos/cm	91-11687	
WNW0706	Cond	02/05/92		474.00	μmhos/cm	92-00167	
WNW0706	Cond	02/05/92		532.00	μmhos/cm	92-00167	
WNW0706	Cond	03/16/92		619.00	μmhos/cm	92-02204	
WNW0706	Cond	03/16/92		573.00	μmhos/cm	92-02204	
WNW0706	Cond	04/27/92		531.00	μmhos/cm	92-04284	
WNW0706	Cond	04/27/92		549.00	μmhos/cm	92-04284	
WNW0706	Cond	08/10/92		579.00	μmhos/cm	92-07525	
WNW0706	Cond	08/10/92		600.00	μmhos/cm	92-07525	
WNW0706	Cond	08/24/92		570.00	μmhos/cm	92-09056	
WNW0706	Cond	08/24/92		548.00	μmhos/cm	92-09056	
WNW0706	Cond	10/05/92		510.00	μmhos/cm	92-10636	
WNW0706	Cond	10/05/92		541.00	μmhos/cm	92-10636	
WNW0706	Cond	11/04/92		426.00	μmhos/cm	92-11659	
WNW0706	Cond	11/04/92		444.00	μmhos/cm	92-11659	
WNW0706	Cond	12/03/92		700.00	μmhos/cm	92-13005	
WNW0706	Cond	01/11/93		638.00	μmhos/cm	93-00209	
WNW0706	Cond	01/11/93		610.00	μmhos/cm	93-00209	
WNW0706	Cond	02/16/93		603.00	μmhos/cm	93-01892	
WNW0706	Cond	04/19/93		537.00	μmhos/cm	93-03822	
WNW0706	Cond	04/19/93		557.00	μmhos/cm	93-03822	
WNW0706	Cond	05/24/93		530.00	μmhos/cm	93-05656	
WNW0706	Cond	05/24/93		521.00	μmhos/cm	93-05656	
WNW0706	Cond	07/13/93		477.00	μmhos/cm	93-07043	
WNW0706	Cond	07/13/93		460.00	μmhos/cm	93-07043	
WNW0706	Cond	11/05/93		457.00	μmhos/cm	93-11597	
WNW0706	Cond	02/14/94		459.00	μmhos/cm	94-00309	
WNW0706	Cond	02/14/94		633.00	μmhos/cm	94-00309	
WNW0706	Cond	05/05/94		577.00	μmhos/cm	94-03473	
WNW0706	Cond	05/05/94		624.00	μmhos/cm	94-03473	
WNW0706	NPOC	02/19/91		6.60	mg/L	91-01254	
WNW0706	NPOC	05/06/91		48.00	mg/L	91-03400	
WNW0706	NPOC	06/10/91		6.40	mg/L	91-04962	U
WNW0706	NPOC	07/22/91		3.60	mg/L	91-06420	
WNW0706	NPOC	09/09/91		5.60	mg/L	91-07976	
WNW0706	NPOC	10/14/91		14.00	mg/L	91-09317	
WNW0706	NPOC	12/02/91		5.10	mg/L	91-11691	
WNW0706	NPOC	02/05/92		3.70	mg/L	92-00168	
WNW0706	NPOC	03/16/92		4.50	mg/L	92-02205	
WNW0706	NPOC	04/27/92		3.90	mg/L	92-04285	
WNW0706	NPOC	08/10/92		3.50	mg/L	92-07526	
WNW0706	NPOC	08/10/92		3.60	mg/L	92-07526	
WNW0706	NPOC	08/24/92		3.10	mg/L	92-09057	

Groundwater Contamination Indicator Parameter Data  
 at the CPCWSA for 1991 - 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Real_Data	Units	Sample_ID	Flags
WNW0706	NPOC	10/05/92		3.50	mg/L	92-10637	
WNW0706	NPOC	11/04/92		2.90	mg/L	92-11660	
WNW0706	NPOC	12/03/92		5.10	mg/L	92-13006	
WNW0706	NPOC	01/11/93		4.10	mg/L	93-00210	
WNW0706	NPOC	02/16/93		3.70	mg/L	93-01893	
WNW0706	NPOC	02/16/93		3.60	mg/L	93-01893	
WNW0706	NPOC	04/19/93		3.20	mg/L	93-03823	
WNW0706	NPOC	05/24/93		3.40	mg/L	93-05657	
WNW0706	NPOC	05/24/93		3.40	mg/L	93-05657	
WNW0706	NPOC	07/13/93		2.40	mg/L	93-07044	
WNW0706	NPOC	07/13/93		2.50	mg/L	93-07044	
WNW0706	NPOC	11/05/93		3.60	mg/L	93-11598	
WNW0706	NPOC	02/14/94		3.50	mg/L	94-00310	
WNW0706	NPOC	02/14/94		3.60	mg/L	94-00310	
WNW0706	NPOC	05/05/94		3.70	mg/L	94-03474	
WNW0706	NPOC	05/05/94		3.80	mg/L	94-03474	
WNW0706	TOX	02/19/91		37.00	µg/L	91-01253	
WNW0706	TOX	05/06/91		13.00	µg/L	91-03400	
WNW0706	TOX	06/10/91		12.00	µg/L	91-04962	U
WNW0706	TOX	07/22/91		20.00	µg/L	91-06420	
WNW0706	TOX	09/09/91		5.90	µg/L	91-07976	
WNW0706	TOX	10/14/91		6.80	µg/L	91-09317	
WNW0706	TOX	12/02/91		9.00	µg/L	91-11691	J
WNW0706	TOX	02/05/92		12.80	µg/L	92-00168	
WNW0706	TOX	03/16/92		14.60	µg/L	92-02205	
WNW0706	TOX	04/27/92		10.10	µg/L	92-04285	
WNW0706	TOX	08/10/92		8.90	µg/L	92-07526	
WNW0706	TOX	08/24/92		9.40	µg/L	92-09057	
WNW0706	TOX	10/05/92		11.80	µg/L	92-10637	
WNW0706	TOX	11/04/92		7.60	µg/L	92-11660	
WNW0706	TOX	12/03/92		22.80	µg/L	92-13006	
WNW0706	TOX	01/11/93		17.80	µg/L	93-00210	
WNW0706	TOX	02/16/93		9.60	µg/L	93-01893	
WNW0706	TOX	04/19/93		13.10	µg/L	93-03823	
WNW0706	TOX	05/24/93		10.60	µg/L	93-05657	
WNW0706	TOX	07/13/93		8.70	µg/L	93-07044	
WNW0706	TOX	11/05/93		12.60	µg/L	93-11598	
WNW0706	TOX	02/14/94		10.80	µg/L	94-00310	
WNW0706	TOX	05/05/94		16.60	µg/L	94-03474	
WNW0706	pH	02/19/91		6.66	N/A	91-01250	
WNW0706	pH	02/19/91		6.61	N/A	91-01250	
WNW0706	pH	05/06/91		6.67	N/A	91-03397	
WNW0706	pH	06/10/91		6.56	N/A	91-04959	
WNW0706	pH	07/22/91		6.66	N/A	91-06416	
WNW0706	pH	09/09/91		6.84	N/A	91-07972	

Groundwater Contamination Indicator Parameter Data  
at the CPCWSA for 1991 - 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Real_Data	Units	Sample_ID	Flags
WNW0706	pH	09/09/91		6.83	N/A	91-07972	
WNW0706	pH	10/14/91		6.52	N/A	91-09314	
WNW0706	pH	10/14/91		6.47	N/A	91-09314	
WNW0706	pH	12/02/91		6.78	N/A	91-11687	
WNW0706	pH	12/02/91		6.83	N/A	91-11687	
WNW0706	pH	02/05/92		6.68	N/A	92-00167	
WNW0706	pH	02/05/92		6.91	N/A	92-00167	
WNW0706	pH	03/16/92		6.44	N/A	92-02204	
WNW0706	pH	03/16/92		6.35	N/A	92-02204	
WNW0706	pH	04/27/92		6.36	N/A	92-04284	
WNW0706	pH	04/27/92		6.32	N/A	92-04284	
WNW0706	pH	08/10/92		6.53	N/A	92-07525	
WNW0706	pH	08/10/92		6.43	N/A	92-07525	
WNW0706	pH	08/24/92		6.55	N/A	92-09056	
WNW0706	pH	08/24/92		6.59	N/A	92-09056	
WNW0706	pH	10/05/92		6.36	N/A	92-10636	
WNW0706	pH	10/05/92		6.33	N/A	92-10636	
WNW0706	pH	11/04/92		6.25	N/A	92-11659	
WNW0706	pH	11/04/92		6.28	N/A	92-11659	
WNW0706	pH	12/03/92		6.23	N/A	92-13005	
WNW0706	pH	01/11/93		6.27	N/A	93-00209	
WNW0706	pH	01/11/93		6.31	N/A	93-00209	
WNW0706	pH	02/16/93		6.87	N/A	93-01892	
WNW0706	pH	04/19/93		6.32	N/A	93-03822	
WNW0706	pH	04/19/93		6.32	N/A	93-03822	
WNW0706	pH	05/24/93		6.48	N/A	93-05656	
WNW0706	pH	05/24/93		6.51	N/A	93-05656	
WNW0706	pH	07/13/93		6.47	N/A	93-07043	
WNW0706	pH	07/13/93		6.41	N/A	93-07043	
WNW0706	pH	11/05/93		6.41	N/A	93-11597	
WNW0706	pH	02/14/94		6.37	N/A	94-00309	
WNW0706	pH	02/14/94		6.34	N/A	94-00309	
WNW0706	pH	05/05/94		6.53	N/A	94-03473	
WNW0706	pH	05/05/94		6.54	N/A	94-03473	

Appendix D

Fourth-Quarter 1993 and Second-Quarter 1994  
Expanded Groundwater Program Data

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Groundwater Volatiles Analyte Data at the CPCWSA  
 4th Rd. 1993 and 2nd Rd. 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Real_Data	Units	Sample_ID	Flags
WNW0704	acetone	11/08/93	ND < 10.00	10.00	µg/L	93-11728	
WNW0704	acetone	05/04/94	ND < 10.00	10.00	µg/L	94-03456	
WNW0704	benzene	11/08/93	ND < 5.00	5.00	µg/L	93-11728	
WNW0704	benzene	05/04/94	ND < 0.70	0.70	µg/L	94-03456	
WNW0704	br_meth	11/08/93	ND < 10.00	10.00	µg/L	93-11728	UJ
WNW0704	br_meth	05/04/94	ND < 10.00	10.00	µg/L	94-03456	
WNW0704	brdcmeth	11/08/93	ND < 5.00	5.00	µg/L	93-11728	
WNW0704	brdcmeth	05/04/94	ND < 5.00	5.00	µg/L	94-03456	
WNW0704	brform	11/08/93	ND < 5.00	5.00	µg/L	93-11728	
WNW0704	brform	05/04/94	ND < 5.00	5.00	µg/L	94-03456	
WNW0704	c_13_dcp	11/08/93	ND < 5.00	5.00	µg/L	93-11728	
WNW0704	c_13_dcp	05/04/94	ND < 5.00	5.00	µg/L	94-03456	
WNW0704	ccl4	11/08/93	ND < 5.00	5.00	µg/L	93-11728	
WNW0704	ccl4	05/04/94	ND < 5.00	5.00	µg/L	94-03456	
WNW0704	cl_benz	11/08/93	ND < 5.00	5.00	µg/L	93-11728	
WNW0704	cl_benz	05/04/94	ND < 5.00	5.00	µg/L	94-03456	
WNW0704	cl_eth	11/08/93	ND < 10.0	10.00	µg/L	93-11728	
WNW0704	cl_eth	05/04/94	ND < 5.00	5.00	µg/L	94-03456	
WNW0704	cl_form	11/08/93	ND < 5.00	5.00	µg/L	93-11728	
WNW0704	cl_form	05/04/94	ND < 5.00	5.00	µg/L	94-03456	
WNW0704	cl_meth	11/08/93	ND < 10.00	10.00	µg/L	93-11728	UJ
WNW0704	cl_meth	05/04/94	ND < 5.00	5.00	µg/L	94-03456	
WNW0704	cs2	11/08/93	ND < 5.00	5.00	µg/L	93-11728	
WNW0704	cs2	05/04/94	ND < 5.00	5.00	µg/L	94-03456	
WNW0704	dbc_meth	11/08/93	ND < 5.00	5.00	µg/L	93-11728	
WNW0704	dbc_meth	05/04/94	ND < 5.00	5.00	µg/L	94-03456	
WNW0704	dca_11	11/08/93	ND < 5.00	5.00	µg/L	93-11728	
WNW0704	dca_11	05/04/94	ND < 5.00	5.00	µg/L	94-03456	
WNW0704	dca_12	11/08/93	ND < 5.00	5.00	µg/L	93-11728	
WNW0704	dca_12	05/04/94	ND < 5.00	5.00	µg/L	94-03456	
WNW0704	dce_11	11/08/93	ND < 5.00	5.00	µg/L	93-11728	
WNW0704	dce_11	05/04/94	ND < 5.00	5.00	µg/L	94-03456	
WNW0704	dce_12_t	11/08/93	ND < 5.00	5.00	µg/L	93-11728	
WNW0704	dce_12_t	05/04/94	ND < 5.00	5.00	µg/L	94-03456	UJ
WNW0704	dcp_12	11/08/93	ND < 5.00	5.00	µg/L	93-11728	
WNW0704	dcp_12	05/04/94	ND < 5.00	5.00	µg/L	94-03456	
WNW0704	eth_benz	11/08/93	ND < 5.00	5.00	µg/L	93-11728	
WNW0704	eth_benz	05/04/94	ND < 5.00	5.00	µg/L	94-03456	
WNW0704	hexnone2	11/08/93	ND < 10.0	10.00	µg/L	93-11728	
WNW0704	hexnone2	05/04/94	ND < 10.0	10.00	µg/L	94-03456	
WNW0704	mek	11/08/93	ND < 10.00	10.00	µg/L	93-11728	
WNW0704	mek	05/04/94	ND < 10.00	10.00	µg/L	94-03456	
WNW0704	mene_cl	11/08/93	ND < 5.00	5.00	µg/L	93-11728	
WNW0704	mene_cl	05/04/94	ND < 5.00	5.00	µg/L	94-03456	
WNW0704	mibk	11/08/93	ND < 10.00	10.00	µg/L	93-11728	
WNW0704	mibk	05/04/94	ND < 10.00	10.00	µg/L	94-03456	

Groundwater Volatiles Analyte Data at the CPCWSA  
 4th Rd. 1993 and 2nd Rd. 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Real_Data	Units	Sample_ID	Flags
WNW0704	styrene	11/08/93	ND < 5.00	5.00	µg/L	93-11728	
WNW0704	styrene	05/04/94	ND < 5.00	5.00	µg/L	94-03456	
WNW0704	t_13_dcp	11/08/93	ND < 5.00	5.00	µg/L	93-11728	
WNW0704	t_13_dcp	05/04/94	ND < 5.00	5.00	µg/L	94-03456	
WNW0704	tca_111	11/08/93	ND < 5.00	5.00	µg/L	93-11728	
WNW0704	tca_111	05/04/94	ND < 5.00	5.00	µg/L	94-03456	
WNW0704	tca_112	11/08/93	ND < 5.00	5.00	µg/L	93-11728	
WNW0704	tca_112	05/04/94	ND < 5.00	5.00	µg/L	94-03456	
WNW0704	tca_1122	11/08/93	ND < 5.00	5.00	µg/L	93-11728	
WNW0704	tca_1122	05/04/94	ND < 5.00	5.00	µg/L	94-03456	
WNW0704	tcb_124	11/08/93	ND < 10.00	10.00	µg/L	93-11729	
WNW0704	tcb_124	11/08/93	ND < 10.00	10.00	µg/L	93-11729	UJ
WNW0704	tcb_124	05/04/94	ND < 11.00	11.00	µg/L	94-03457	
WNW0704	tetcleth	11/08/93	ND < 5.00	5.00	µg/L	93-11728	
WNW0704	tetcleth	05/04/94	ND < 5.00	5.00	µg/L	94-03456	
WNW0704	toluene	11/08/93	ND < 5.00	5.00	µg/L	93-11728	
WNW0704	toluene	05/04/94	ND < 5.00	5.00	µg/L	94-03456	
WNW0704	tricleth	11/08/93	ND < 5.00	5.00	µg/L	93-11728	
WNW0704	tricleth	05/04/94	ND < 5.00	5.00	µg/L	94-03456	
WNW0704	vnyl_cl	11/08/93	ND < 10.00	10.00	µg/L	93-11728	
WNW0704	vnyl_cl	05/04/94	ND < 2.00	2.00	µg/L	94-03456	
WNW0704	xylene	11/08/93	ND < 5.00	5.00	µg/L	93-11728	
WNW0704	xylene	05/04/94	ND < 5.00	5.00	µg/L	94-03456	

Groundwater Semivolatiles Analyte Data at the CPCWSA  
4th Rd. 1993 and 2nd Rd. 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Real_Data	Units	Sample_ID	Flags
WNW0704	acnphthe	11/08/93	ND < 10.00	10.00	µg/L	93-11729	
WNW0704	acnphthe	11/08/93	ND < 10.00	10.00	µg/L	93-11729	UJ
WNW0704	acnphthe	05/04/94	ND < 11.00	11.00	µg/L	94-03457	
WNW0704	acnphthy	11/08/93	ND < 10.00	10.00	µg/L	93-11729	UJ
WNW0704	acnphthy	11/08/93	ND < 10.00	10.00	µg/L	93-11729	
WNW0704	acnphthy	05/04/94	ND < 11.00	11.00	µg/L	94-03457	
WNW0704	anthracn	11/08/93	ND < 10.00	10.00	µg/L	93-11729	
WNW0704	anthracn	11/08/93	ND < 10.00	10.00	µg/L	93-11729	UJ
WNW0704	anthracn	05/04/94	ND < 11.00	11.00	µg/L	94-03457	
WNW0704	bis2ceth	11/08/93	ND < 10.00	10.00	µg/L	93-11729	UJ
WNW0704	bis2ceth	11/08/93	ND < 10.00	10.00	µg/L	93-11729	
WNW0704	bis2ceth	05/04/94	ND < 11.00	11.00	µg/L	94-03457	
WNW0704	bis2cexy	11/08/93	ND < 10.00	10.00	µg/L	93-11729	UJ
WNW0704	bis2cexy	11/08/93	ND < 10.00	10.00	µg/L	93-11729	
WNW0704	bis2cexy	05/04/94	ND < 11.00	11.00	µg/L	94-03457	
WNW0704	bis2clis	11/08/93	ND < 10.00	10.00	µg/L	93-11729	
WNW0704	bis2clis	11/08/93	ND < 10.00	10.00	µg/L	93-11729	UJ
WNW0704	bis2clis	05/04/94	ND < 11.00	11.00	µg/L	94-03457	
WNW0704	bis2ehex	11/08/93	ND < 10.00	10.00	µg/L	93-11729	
WNW0704	bis2ehex	11/08/93	ND < 10.00	10.00	µg/L	93-11729	UJ
WNW0704	bis2ehex	05/04/94	ND < 11.00	11.00	µg/L	94-03457	
WNW0704	bnz_a_an	11/08/93	ND < 10.00	10.00	µg/L	93-11729	
WNW0704	bnz_a_an	11/08/93	ND < 10.00	10.00	µg/L	93-11729	UJ
WNW0704	bnz_a_an	05/04/94	ND < 11.00	11.00	µg/L	94-03457	
WNW0704	bnz_a_py	11/08/93	ND < 10.00	10.00	µg/L	93-11729	UJ
WNW0704	bnz_a_py	11/08/93	ND < 10.00	10.00	µg/L	93-11729	
WNW0704	bnz_a_py	05/04/94	ND < 11.00	11.00	µg/L	94-03457	
WNW0704	bnz_b_fl	11/08/93	ND < 10.00	10.00	µg/L	93-11729	UJ
WNW0704	bnz_b_fl	11/08/93	ND < 10.00	10.00	µg/L	93-11729	
WNW0704	bnz_b_fl	05/04/94	ND < 11.00	11.00	µg/L	94-03457	
WNW0704	bnz_k_fl	11/08/93	ND < 10.00	10.00	µg/L	93-11729	
WNW0704	bnz_k_fl	11/08/93	ND < 10.00	10.00	µg/L	93-11729	UJ
WNW0704	bnz_k_fl	05/04/94	ND < 11.00	11.00	µg/L	94-03457	
WNW0704	bnzghipr	11/08/93	ND < 10.00	10.00	µg/L	93-11729	
WNW0704	bnzghipr	11/08/93	ND < 10.00	10.00	µg/L	93-11729	UJ
WNW0704	bnzghipr	05/04/94	ND < 11.00	11.00	µg/L	94-03457	
WNW0704	brppeth4	11/08/93	ND < 10.00	10.00	µg/L	93-11729	
WNW0704	brppeth4	11/08/93	ND < 10.00	10.00	µg/L	93-11729	UJ
WNW0704	brppeth4	05/04/94	ND < 11.00	11.00	µg/L	94-03457	
WNW0704	butbnzph	11/08/93	ND < 10.00	10.00	µg/L	93-11729	
WNW0704	butbnzph	11/08/93	ND < 10.00	10.00	µg/L	93-11729	UJ
WNW0704	butbnzph	05/04/94	ND < 11.00	11.00	µg/L	94-03457	
WNW0704	carbazol	11/08/93	ND < 10.00	10.00	µg/L	93-11729	
WNW0704	carbazol	11/08/93	ND < 10.00	10.00	µg/L	93-11729	UJ
WNW0704	carbazol	05/04/94	ND < 11.00	11.00	µg/L	94-03457	

Groundwater Semivolatiles Analyte Data at the CPCWSA  
4th Rd. 1993 and 2nd Rd. 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Real_Data	Units	Sample_ID	Flags
WNW0704	chppeth4	11/08/93	ND < 10.00	10.00	µg/L	93-11729	UJ
WNW0704	chppeth4	11/08/93	ND < 10.00	10.00	µg/L	93-11729	
WNW0704	chppeth4	05/04/94	ND < 11.00	11.00	µg/L	94-03457	
WNW0704	chrysene	11/08/93	ND < 10.00	10.00	µg/L	93-11729	UJ
WNW0704	chrysene	11/08/93	ND < 10.00	10.00	µg/L	93-11729	
WNW0704	chrysene	05/04/94	ND < 11.00	11.00	µg/L	94-03457	
WNW0704	clnapht2	11/08/93	ND < 10.00	10.00	µg/L	93-11729	UJ
WNW0704	clnapht2	11/08/93	ND < 10.00	10.00	µg/L	93-11729	
WNW0704	clnapht2	05/04/94	ND < 11.00	11.00	µg/L	94-03457	
WNW0704	clphen_2	11/08/93	ND < 10.00	10.00	µg/L	93-11729	UJ
WNW0704	clphen_2	11/08/93	ND < 10.00	10.00	µg/L	93-11729	R
WNW0704	clphen_2	05/04/94	ND < 11.00	11.00	µg/L	94-03457	
WNW0704	dbahanth	11/08/93	ND < 10.00	10.00	µg/L	93-11729	UJ
WNW0704	dbahanth	11/08/93	ND < 10.00	10.00	µg/L	93-11729	
WNW0704	dbahanth	05/04/94	ND < 11.00	11.00	µg/L	94-03457	
WNW0704	dcb_33	11/08/93	ND < 10.00	10.00	µg/L	93-11729	
WNW0704	dcb_33	11/08/93	ND < 10.00	10.00	µg/L	93-11729	UJ
WNW0704	dcb_33	05/04/94	ND < 11.00	11.00	µg/L	94-03457	
WNW0704	dibnzfur	11/08/93	ND < 10.00	10.00	µg/L	93-11729	UJ
WNW0704	dibnzfur	11/08/93	ND < 10.00	10.00	µg/L	93-11729	
WNW0704	dibnzfur	05/04/94	ND < 11.00	11.00	µg/L	94-03457	
WNW0704	diclph24	11/08/93	ND < 10.00	10.00	µg/L	93-11729	R
WNW0704	diclph24	11/08/93	ND < 10.00	10.00	µg/L	93-11729	UJ
WNW0704	diclph24	05/04/94	ND < 11.00	11.00	µg/L	94-03457	
WNW0704	diethyph	11/08/93	ND < 10.00	10.00	µg/L	93-11729	UJ
WNW0704	diethyph	11/08/93	ND < 10.00	10.00	µg/L	93-11729	
WNW0704	diethyph	05/04/94	ND < 11.00	11.00	µg/L	94-03457	
WNW0704	dimthp24	11/08/93	ND < 10.00	10.00	µg/L	93-11729	UJ
WNW0704	dimthp24	11/08/93	ND < 10.00	10.00	µg/L	93-11729	R
WNW0704	dimthp24	05/04/94	ND < 11.00	11.00	µg/L	94-03457	
WNW0704	dimthyph	11/08/93	ND < 10.00	10.00	µg/L	93-11729	UJ
WNW0704	dimthyph	11/08/93	ND < 10.00	10.00	µg/L	93-11729	
WNW0704	dimthyph	05/04/94	ND < 11.00	11.00	µg/L	94-03457	
WNW0704	dinbutph	11/08/93	ND < 10.00	10.00	µg/L	93-11729	
WNW0704	dinbutph	11/08/93	ND < 10.00	10.00	µg/L	93-11729	UJ
WNW0704	dinbutph	05/04/94	ND < 11.00	11.00	µg/L	94-03457	
WNW0704	dinoctph	11/08/93	ND < 10.00	10.00	µg/L	93-11729	UJ
WNW0704	dinoctph	11/08/93	ND < 10.00	10.00	µg/L	93-11729	
WNW0704	dinoctph	05/04/94	ND < 11.00	11.00	µg/L	94-03457	
WNW0704	dintrp24	11/08/93	ND < 50.00	50.00	µg/L	93-11729	R
WNW0704	dintrp24	11/08/93	ND < 50.00	50.00	µg/L	93-11729	UJ
WNW0704	dintrp24	05/04/94	ND < 55.00	55.00	µg/L	94-03457	
WNW0704	dintrt24	11/08/93	ND < 10.00	10.00	µg/L	93-11729	UJ
WNW0704	dintrt24	11/08/93	ND < 10.00	10.00	µg/L	93-11729	
WNW0704	dintrt24	05/04/94	ND < 11.00	11.00	µg/L	94-03457	

Groundwater Semivolatiles Analyte Data at the CPCWSA  
 4th Rd. 1993 and 2nd Rd. 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Real_Data	Units	Sample_ID	Flags
WNW0704	dintrt26	11/08/93	ND < 10.00	10.00	µg/L	93-11729	UJ
WNW0704	dintrt26	11/08/93	ND < 10.00	10.00	µg/L	93-11729	
WNW0704	dintrt26	05/04/94	ND < 11.00	11.00	µg/L	94-03457	
WNW0704	dntrcr46	11/08/93	ND < 50.00	50.00	µg/L	93-11729	R
WNW0704	dntrcr46	11/08/93	ND < 50.00	50.00	µg/L	93-11729	UJ
WNW0704	dntrcr46	05/04/94	ND < 55.00	55.00	µg/L	94-03457	
WNW0704	flranthn	11/08/93	ND < 10.00	10.00	µg/L	93-11729	
WNW0704	flranthn	11/08/93	ND < 10.00	10.00	µg/L	93-11729	UJ
WNW0704	flranthn	05/04/94	ND < 11.00	11.00	µg/L	94-03457	
WNW0704	fluorene	11/08/93	ND < 10.00	10.00	µg/L	93-11729	UJ
WNW0704	fluorene	11/08/93	ND < 10.00	10.00	µg/L	93-11729	
WNW0704	fluorene	05/04/94	ND < 11.00	11.00	µg/L	94-03457	
WNW0704	hexclbnz	11/08/93	ND < 10.00	10.00	µg/L	93-11729	
WNW0704	hexclbnz	11/08/93	ND < 10.00	10.00	µg/L	93-11729	UJ
WNW0704	hexclbnz	05/04/94	ND < 11.00	11.00	µg/L	94-03457	
WNW0704	hexclbut	11/08/93	ND < 10.00	10.00	µg/L	93-11729	UJ
WNW0704	hexclbut	11/08/93	ND < 10.00	10.00	µg/L	93-11729	
WNW0704	hexclbut	05/04/94	ND < 11.00	11.00	µg/L	94-03457	
WNW0704	hexcleth	11/08/93	ND < 10.00	10.00	µg/L	93-11729	
WNW0704	hexcleth	11/08/93	ND < 10.00	10.00	µg/L	93-11729	UJ
WNW0704	hexcleth	05/04/94	ND < 11.00	11.00	µg/L	94-03457	
WNW0704	hexclpen	11/08/93	ND < 10.00	10.00	µg/L	93-11729	
WNW0704	hexclpen	11/08/93	ND < 10.00	10.00	µg/L	93-11729	UJ
WNW0704	hexclpen	05/04/94	ND < 11.00	11.00	µg/L	94-03457	
WNW0704	indnpyre	11/08/93	ND < 10.00	10.00	µg/L	93-11729	UJ
WNW0704	indnpyre	11/08/93	ND < 10.00	10.00	µg/L	93-11729	
WNW0704	indnpyre	05/04/94	ND < 11.00	11.00	µg/L	94-03457	
WNW0704	isophron	11/08/93	ND < 10.00	10.00	µg/L	93-11729	UJ
WNW0704	isophron	11/08/93	ND < 10.00	10.00	µg/L	93-11729	
WNW0704	isophron	05/04/94	ND < 11.00	11.00	µg/L	94-03457	
WNW0704	m_dclbnz	11/08/93	ND < 10.00	10.00	µg/L	93-11729	UJ
WNW0704	m_dclbnz	11/08/93	ND < 10.00	10.00	µg/L	93-11729	
WNW0704	m_dclbnz	05/04/94	ND < 11.00	11.00	µg/L	94-03457	
WNW0704	m_ntranl	11/08/93	ND < 50.00	50.00	µg/L	93-11729	
WNW0704	m_ntranl	11/08/93	ND < 50.00	50.00	µg/L	93-11729	UJ
WNW0704	m_ntranl	05/04/94	ND < 55.00	55.00	µg/L	94-03457	
WNW0704	mthynph2	11/08/93	ND < 10.00	10.00	µg/L	93-11729	
WNW0704	mthynph2	11/08/93	ND < 10.00	10.00	µg/L	93-11729	UJ
WNW0704	mthynph2	05/04/94	ND < 11.00	11.00	µg/L	94-03457	
WNW0704	naphthal	11/08/93	ND < 10.00	10.00	µg/L	93-11729	
WNW0704	naphthal	11/08/93	ND < 10.00	10.00	µg/L	93-11729	UJ
WNW0704	naphthal	05/04/94	ND < 11.00	11.00	µg/L	94-03457	
WNW0704	nnttrphny	11/08/93	ND < 10.00	10.00	µg/L	93-11729	UJ
WNW0704	nnttrphny	11/08/93	ND < 10.00	10.00	µg/L	93-11729	
WNW0704	nnttrphny	05/04/94	ND < 11.00	11.00	µg/L	94-03457	

Groundwater Semivolatiles Analyte Data at the CPCWSA  
4th Rd. 1993 and 2nd Rd. 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Real_Data	Units	Sample_ID	Flags
WNW0704	nntrprpy	11/08/93	ND < 10.00	10.00	µg/L	93-11729	UJ
WNW0704	nntrprpy	11/08/93	ND < 10.00	10.00	µg/L	93-11729	
WNW0704	nntrprpy	05/04/94	ND < 11.00	11.00	µg/L	94-03457	
WNW0704	ntrobenz	11/08/93	ND < 10.00	10.00	µg/L	93-11729	UJ
WNW0704	ntrobenz	11/08/93	ND < 10.00	10.00	µg/L	93-11729	
WNW0704	ntrobenz	05/04/94	ND < 11.00	11.00	µg/L	94-03457	
WNW0704	o_cresol	11/08/93	ND < 10.00	10.00	µg/L	93-11729	UJ
WNW0704	o_cresol	11/08/93	ND < 10.00	10.00	µg/L	93-11729	R
WNW0704	o_cresol	05/04/94	ND < 11.00	11.00	µg/L	94-03457	
WNW0704	o_dclbnz	11/08/93	ND < 10.00	10.00	µg/L	93-11729	
WNW0704	o_dclbnz	11/08/93	ND < 10.00	10.00	µg/L	93-11729	UJ
WNW0704	o_dclbnz	05/04/94	ND < 11.00	11.00	µg/L	94-03457	
WNW0704	o_ntranl	11/08/93	ND < 50.00	50.00	µg/L	93-11729	
WNW0704	o_ntranl	11/08/93	ND < 50.00	50.00	µg/L	93-11729	UJ
WNW0704	o_ntranl	05/04/94	ND < 55.00	55.00	µg/L	94-03457	
WNW0704	o_ntrphn	11/08/93	ND < 10.00	10.00	µg/L	93-11729	R
WNW0704	o_ntrphn	11/08/93	ND < 10.00	10.00	µg/L	93-11729	UJ
WNW0704	o_ntrphn	05/04/94	ND < 11.00	11.00	µg/L	94-03457	
WNW0704	p_cresol	11/08/93	ND < 10.00	10.00	µg/L	93-11729	UJ
WNW0704	p_cresol	11/08/93	ND < 10.00	10.00	µg/L	93-11729	R
WNW0704	p_cresol	05/04/94	ND < 11.00	11.00	µg/L	94-03457	
WNW0704	p_dclbnz	11/08/93	ND < 10.00	10.00	µg/L	93-11729	
WNW0704	p_dclbnz	11/08/93	ND < 10.00	10.00	µg/L	93-11729	UJ
WNW0704	p_dclbnz	05/04/94	ND < 11.00	11.00	µg/L	94-03457	
WNW0704	p_ntranl	11/08/93	ND < 50.00	50.00	µg/L	93-11729	UJ
WNW0704	p_ntranl	11/08/93	ND < 50.00	50.00	µg/L	93-11729	
WNW0704	p_ntranl	05/04/94	ND < 55.00	55.00	µg/L	94-03457	
WNW0704	p_ntrphn	11/08/93	ND < 50.00	50.00	µg/L	93-11729	UJ
WNW0704	p_ntrphn	11/08/93	ND < 50.00	50.00	µg/L	93-11729	R
WNW0704	p_ntrphn	05/04/94	ND < 55.00	55.00	µg/L	94-03457	
WNW0704	pclranil	11/08/93	ND < 10.00	10.00	µg/L	93-11729	
WNW0704	pclranil	11/08/93	ND < 10.00	10.00	µg/L	93-11729	UJ
WNW0704	pclranil	05/04/94	ND < 11.00	11.00	µg/L	94-03457	
WNW0704	pclrmers	11/08/93	ND < 10.00	10.00	µg/L	93-11729	R
WNW0704	pclrmers	11/08/93	ND < 10.00	10.00	µg/L	93-11729	UJ
WNW0704	pclrmers	05/04/94	ND < 11.00	11.00	µg/L	94-03457	
WNW0704	phenol	11/08/93	ND < 10.00	10.00	µg/L	93-11729	UJ
WNW0704	phenol	11/08/93	ND < 10.00	10.00	µg/L	93-11729	R
WNW0704	phenol	05/04/94	ND < 11.00	11.00	µg/L	94-03457	
WNW0704	phnanthr	11/08/93	ND < 10.00	10.00	µg/L	93-11729	
WNW0704	phnanthr	11/08/93	ND < 10.00	10.00	µg/L	93-11729	UJ
WNW0704	phnanthr	05/04/94	ND < 11.00	11.00	µg/L	94-03457	
WNW0704	pntclphn	11/08/93	ND < 50.00	50.00	µg/L	93-11729	UJ
WNW0704	pntclphn	11/08/93	ND < 50.00	50.00	µg/L	93-11729	R
WNW0704	pntclphn	05/04/94	ND < 55.00	55.00	µg/L	94-03457	

Groundwater Semivolatiles Analyte Data at the CPCWSA  
4th Rd. 1993 and 2nd Rd. 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Real_Data	Units	Sample_ID	Flags
WNW0704	pyrene	11/08/93	ND < 10.00	10.00	µg/L	93-11729	UJ
WNW0704	pyrene	11/08/93	ND < 10.00	10.00	µg/L	93-11729	
WNW0704	pyrene	05/04/94	ND < 11.00	11.00	µg/L	94-03457	
WNW0704	tc1ph245	11/08/93	ND < 10.00	10.00	µg/L	93-11729	UJ
WNW0704	tc1ph245	11/08/93	ND < 10.00	10.00	µg/L	93-11729	R
WNW0704	tc1ph245	05/04/94	ND < 11.00	11.00	µg/L	94-03457	
WNW0704	tc1ph246	11/08/93	ND < 10.00	10.00	µg/L	93-11729	UJ
WNW0704	tc1ph246	11/08/93	ND < 10.00	10.00	µg/L	93-11729	R
WNW0704	tc1ph246	05/04/94	ND < 11.00	11.00	µg/L	94-03457	
WNW0704	a_bhc	11/08/93	ND < 0.05	0.05	µg/L	93-11730	UJ
WNW0704	a_bhc	05/04/94	ND < 0.05	0.05	µg/L	94-03459	
WNW0704	a_chrlrn	11/08/93	ND < 0.50	0.50	µg/L	93-11730	UJ
WNW0704	a_chrlrn	05/04/94	ND < 0.51	0.51	µg/L	94-03459	
WNW0704	aldrin	11/08/93	ND < 0.05	0.05	µg/L	93-11730	UJ
WNW0704	aldrin	05/04/94	ND < 0.05	0.05	µg/L	94-03459	
WNW0704	b_bhc	11/08/93	ND < 0.05	0.05	µg/L	93-11730	UJ
WNW0704	b_bhc	05/04/94	ND < 0.05	0.05	µg/L	94-03459	
WNW0704	d_bhc	11/08/93	ND < 0.05	0.05	µg/L	93-11730	UJ
WNW0704	d_bhc	05/04/94	ND < 0.05	0.05	µg/L	94-03459	
WNW0704	ddd_44	11/08/93	ND < 0.10	0.10	µg/L	93-11730	UJ
WNW0704	ddd_44	05/04/94	ND < 0.10	0.10	µg/L	94-03459	
WNW0704	dde_44	11/08/93	ND < 0.10	0.10	µg/L	93-11730	UJ
WNW0704	dde_44	05/04/94	ND < 0.10	0.10	µg/L	94-03459	
WNW0704	ddt_44	11/08/93	ND < 0.10	0.10	µg/L	93-11730	UJ
WNW0704	ddt_44	05/04/94	ND < 0.10	0.10	µg/L	94-03459	UJ
WNW0704	dieldrin	11/08/93	ND < 0.10	0.10	µg/L	93-11730	UJ
WNW0704	dieldrin	05/04/94	ND < 0.10	0.10	µg/L	94-03459	
WNW0704	endos_1	11/08/93	ND < 0.10	0.10	µg/L	93-11730	UJ
WNW0704	endos_1	05/04/94	ND < 0.10	0.10	µg/L	94-03459	
WNW0704	endos_2	11/08/93	ND < 0.10	0.10	µg/L	93-11730	UJ
WNW0704	endos_2	05/04/94	ND < 0.10	0.10	µg/L	94-03459	
WNW0704	endos_s	11/08/93	ND < 0.10	0.10	µg/L	93-11730	UJ
WNW0704	endos_s	05/04/94	ND < 0.10	0.10	µg/L	94-03459	
WNW0704	endrin	11/08/93	ND < 0.10	0.10	µg/L	93-11730	UJ
WNW0704	endrin	05/04/94	ND < 0.10	0.10	µg/L	94-03459	
WNW0704	endrn_al	05/04/94	ND < 0.10	0.10	µg/L	94-03459	
WNW0704	endrn_kt	11/08/93	ND < 0.10	0.10	µg/L	93-11730	UJ
WNW0704	endrn_kt	05/04/94	ND < 0.10	0.10	µg/L	94-03459	
WNW0704	g_bhc	11/08/93	ND < 0.05	0.05	µg/L	93-11730	UJ
WNW0704	g_bhc	05/04/94	ND < 0.05	0.05	µg/L	94-03459	
WNW0704	g_chlrn	11/08/93	ND < 1.00	1.00	µg/L	93-11730	UJ
WNW0704	g_chlrn	05/04/94	ND < 0.51	0.51	µg/L	94-03459	
WNW0704	hept_clr	11/08/93	ND < 0.05	0.05	µg/L	93-11730	UJ
WNW0704	hept_clr	05/04/94	ND < 0.05	0.05	µg/L	94-03459	
WNW0704	hept_epx	11/08/93	ND < 0.05	0.05	µg/L	93-11730	UJ

Groundwater Semivolatiles Analyte Data at the CPCWSA  
 4th Rd. 1993 and 2nd Rd. 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Real_Data	Units	Sample_ID	Flags
WNW0704	hept_epx	05/04/94	ND < 0.05	0.05	µg/L	94-03459	
WNW0704	meth_xcl	11/08/93	ND < 0.50	0.50	µg/L	93-11730	UJ
WNW0704	meth_xcl	05/04/94	ND < 0.50	0.50	µg/L	94-03459	
WNW0704	pcb_1016	11/08/93	ND < 0.50	0.50	µg/L	93-11730	UJ
WNW0704	pcb_1016	05/04/94	ND < 0.50	0.50	µg/L	94-03459	
WNW0704	pcb_1221	11/08/93	ND < 1.00	1.00	µg/L	93-11730	UJ
WNW0704	pcb_1221	05/04/94	ND < 1.00	1.00	µg/L	94-03459	
WNW0704	pcb_1232	11/08/93	ND < 0.50	0.50	µg/L	93-11730	UJ
WNW0704	pcb_1232	05/04/94	ND < 0.50	0.50	µg/L	94-03459	
WNW0704	pcb_1242	11/08/93	ND < 0.50	0.50	µg/L	93-11730	UJ
WNW0704	pcb_1242	05/04/94	ND < 0.50	0.50	µg/L	94-03459	
WNW0704	pcb_1248	11/08/93	ND < 0.50	0.50	µg/L	93-11730	UJ
WNW0704	pcb_1248	05/04/94	ND < 0.50	0.50	µg/L	94-03459	
WNW0704	pcb_1254	11/08/93	ND < 0.50	0.50	µg/L	93-11730	UJ
WNW0704	pcb_1254	05/04/94	ND < 0.50	0.50	µg/L	94-03459	
WNW0704	pcb_1260	11/08/93	ND < 0.50	0.50	µg/L	93-11730	UJ
WNW0704	pcb_1260	05/04/94	ND < 0.50	0.50	µg/L	94-03459	
WNW0704	toxaphen	11/08/93	ND < 1.00	1.00	µg/L	93-11730	UJ
WNW0704	toxaphen	05/04/94	ND < 1.00	1.00	µg/L	94-03459	UJ

Groundwater Metals Analyte Data at the CPCWSA  
4th Rd. 1993 and 2nd Rd. 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Real_Data	Units	Sample_ID	Flags
WNW0704	Aluminum	11/08/93		182.00	µg/L	93-11723	
WNW0704	Aluminum	05/04/94		135.00	µg/L	94-03458	
WNW0704	Antimony	11/08/93	ND < 3.00	3.00	µg/L	93-11723	
WNW0704	Antimony	05/04/94	ND < 6.00	6.00	µg/L	94-03458	
WNW0704	Arsenic	11/08/93	ND < 3.00	3.00	µg/L	93-11723	
WNW0704	Arsenic	05/04/94	ND < 3.00	3.00	µg/L	94-03458	
WNW0704	Barium	11/08/93		46.30	µg/L	93-11723	
WNW0704	Barium	05/04/94		39.20	µg/L	94-03458	
WNW0704	Beryllium	11/08/93	ND < 3.00	3.00	µg/L	93-11723	
WNW0704	Beryllium	05/04/94	ND < 3.00	3.00	µg/L	94-03458	
WNW0704	Cadmium	11/08/93	ND < 0.20	0.20	µg/L	93-11723	
WNW0704	Cadmium	05/04/94	ND < 0.20	0.20	µg/L	94-03458	
WNW0704	Calcium	11/08/93		185000.00	µg/L	93-11723	
WNW0704	Calcium	05/04/94		156000.00	µg/L	94-03458	J
WNW0704	Chromium	11/08/93	ND < 10.00	10.00	µg/L	93-11723	
WNW0704	Chromium	05/04/94	ND < 10.00	10.00	µg/L	94-03458	
WNW0704	Cobalt	11/08/93	ND < 20.00	20.00	µg/L	93-11723	
WNW0704	Cobalt	05/04/94	ND < 10.00	10.00	µg/L	94-03458	
WNW0704	Copper	11/08/93	ND < 10.00	10.00	µg/L	93-11723	
WNW0704	Copper	05/04/94	ND < 10.00	10.00	µg/L	94-03458	
WNW0704	Iron	11/08/93		310.00	µg/L	93-11723	
WNW0704	Iron	05/04/94		275.00	µg/L	94-03458	
WNW0704	Lead	11/08/93	ND < 2.00	2.00	µg/L	93-11723	
WNW0704	Lead	05/04/94	ND < 2.00	2.00	µg/L	94-03458	
WNW0704	Magnesium	11/08/93		26200.00	µg/L	93-11723	
WNW0704	Magnesium	05/04/94		22000.00	µg/L	94-03458	
WNW0704	Manganese	11/08/93		9850.00	µg/L	93-11723	
WNW0704	Manganese	05/04/94		10800.00	µg/L	94-03458	
WNW0704	Mercury	11/08/93	ND < 0.20	0.20	µg/L	93-11723	
WNW0704	Mercury	05/04/94	ND < 0.20	0.20	µg/L	94-03458	
WNW0704	Nickel	11/08/93		76.00	µg/L	93-11723	
WNW0704	Nickel	05/04/94		74.40	µg/L	94-03458	
WNW0704	Potassium	11/08/93		2590.00	µg/L	93-11723	
WNW0704	Potassium	05/04/94		2190.00	µg/L	94-03458	
WNW0704	Selenium	11/08/93	ND < 3.00	3.00	µg/L	93-11723	
WNW0704	Selenium	05/04/94	ND < 3.00	3.00	µg/L	94-03458	
WNW0704	Silver	11/08/93	ND < 0.20	0.20	µg/L	93-11723	
WNW0704	Silver	05/04/94	ND < 0.60	0.60	µg/L	94-03458	UJ
WNW0704	Sodium	11/08/93		5910.00	µg/L	93-11723	
WNW0704	Sodium	05/04/94		3710.00	µg/L	94-03458	
WNW0704	Thallium	11/08/93	ND < 3.00	3.00	µg/L	93-11723	
WNW0704	Thallium	05/04/94	ND < 3.00	3.00	µg/L	94-03458	
WNW0704	Vanadium	11/08/93	ND < 20.00	20.00	µg/L	93-11723	
WNW0704	Vanadium	05/04/94	ND < 10.00	10.00	µg/L	94-03458	
WNW0704	Zinc	11/08/93	ND < 10.00	10.00	µg/L	93-11723	

Groundwater Metals Analyte Data at the CPCWSA  
4th Rd. 1993 and 2nd Rd. 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Real_Data	Units	Sample_ID	Flags
WNW0704	Zinc	05/04/94	ND < 10.00	10.00	µg/L	94-03458	
BACKGROUND							
WNW0301	Aluminum	10/29/93		9430.00	µg/L	93-11090	
WNW0301	Aluminum	05/16/94		3000.00	µg/L	94-03821	
WNW0301	Calcium	10/29/93		102000.00	µg/L	93-11090	
WNW0301	Calcium	05/16/94		132000.00	µg/L	94-03821	
WNW0301	Iron	10/29/93		16700.00	µg/L	93-11090	
WNW0301	Iron	05/16/94		14800.00	µg/L	94-03821	
WNW0301	Magnesium	10/29/93		11400.00	µg/L	93-11090	
WNW0301	Magnesium	05/16/94		12600.00	µg/L	94-03821	
WNW0301	Manganese	10/29/93		411.00	µg/L	93-11090	
WNW0301	Manganese	05/16/94		480.00	µg/L	94-03821	
WNW0301	Potassium	10/29/93		3760.00	µg/L	93-11090	
WNW0301	Potassium	05/16/94		2100.00	µg/L	94-03821	
WNW0301	Sodium	10/29/93		22900.00	µg/L	93-11090	
WNW0301	Sodium	05/16/94		46200.00	µg/L	94-03821	
WNW0401	Aluminum	11/04/93		240.00	µg/L	93-11450	
WNW0401	Aluminum	05/04/94		830.00	µg/L	94-02994	
WNW0401	Calcium	11/04/93		175000.00	µg/L	93-11450	
WNW0401	Calcium	05/04/94		221000.00	µg/L	94-02994	
WNW0401	Iron	11/04/93		752.00	µg/L	93-11450	
WNW0401	Iron	05/04/94		3600.00	µg/L	94-02994	
WNW0401	Magnesium	11/04/93		19100.00	µg/L	93-11450	
WNW0401	Magnesium	05/04/94		21400.00	µg/L	94-02994	
WNW0401	Manganese	11/04/93		27.00	µg/L	93-11450	
WNW0401	Manganese	05/04/94		89.00	µg/L	94-02994	
WNW0401	Potassium	11/04/93		1870.00	µg/L	93-11450	
WNW0401	Potassium	05/04/94		2100.00	µg/L	94-02994	
WNW0401	Sodium	11/04/93		155000.00	µg/L	93-11450	
WNW0401	Sodium	05/04/94		185000.00	µg/L	94-02994	
WNW0706	Aluminum	11/05/93		9600.00	µg/L	93-11603	
WNW0706	Aluminum	05/05/94		2700.00	µg/L	94-03479	
WNW0706	Calcium	11/05/93		69300.00	µg/L	93-11603	
WNW0706	Calcium	05/05/94		87300.00	µg/L	94-03479	
WNW0706	Iron	11/05/93		4280.00	µg/L	93-11603	
WNW0706	Iron	05/05/94		4300.00	µg/L	94-03479	
WNW0706	Magnesium	11/05/93		10700.00	µg/L	93-11603	
WNW0706	Magnesium	05/05/94		13400.00	µg/L	94-03479	
WNW0706	Manganese	11/05/93		230.00	µg/L	93-11603	
WNW0706	Manganese	05/05/94		150.00	µg/L	94-03479	
WNW0706	Potassium	11/05/93		1790.00	µg/L	93-11603	

Groundwater Metals Analyte Data at the CPCWSA  
4th Rd. 1993 and 2nd Rd. 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Real_Data	Units	Sample_ID	Flags
WNW0706	Potassium	05/05/94		1500.00	µg/L	94-03479	
WNW0706	Sodium	11/05/93		3650.00	µg/L	93-11603	
WNW0706	Sodium	05/05/94		4600.00	µg/L	94-03479	

Groundwater Quality Parameter Data at the CPCWSA  
4th Rd. 1993 and 2nd Rd. 1994

Well_ID	Parameter	Samp_Date	Chr_Data	Real_Data	Units	Sample_ID	Flags
WNW0704	cl	11/08/93		1.30	mg/L	93-11722	
WNW0704	cl	05/04/94		2.00	mg/L	94-03453	
WNW0704	co3	11/08/93	ND < 1.00	1.00	mg/L	93-11722	
WNW0704	co3	05/04/94	ND < 1.00	1.00	mg/L	94-03453	
WNW0704	hco3	11/08/93		424.00	mg/L	93-11722	
WNW0704	hco3	05/04/94		432.00	mg/L	94-03453	
WNW0704	hydroxyl	11/08/93	ND < 1.00	1.00	mg/L	93-11722	
WNW0704	hydroxyl	05/04/94	ND < 1.00	1.00	mg/L	94-03453	
WNW0704	nh3	11/08/93		0.33	mg/L	93-11719	
WNW0704	nh3	11/08/93		0.34	mg/L	93-11719	
WNW0704	nh3	05/04/94		0.50	mg/L	94-03450	
WNW0704	nh3	05/04/94		0.48	mg/L	94-03450	
WNW0704	no3no2	11/08/93	ND < 0.05	0.05	mg/L	93-11721	
WNW0704	no3no2	05/04/94	ND < 0.05	0.05	mg/L	94-03452	
WNW0704	po4_totl	11/08/93	ND < 0.05	0.05	mg/L	93-11721	
WNW0704	po4_totl	05/04/94	ND < 0.02	0.02	mg/L	94-03452	
WNW0704	silica	11/08/93		4.60	mg/L	93-11722	
WNW0704	silica	05/04/94		5.30	mg/L	94-03453	
WNW0704	so4	11/08/93		87.80	mg/L	93-11722	
WNW0704	so4	05/04/94		77.30	mg/L	94-03453	
WNW0704	sulfide	11/08/93	ND < 1.00	1.00	mg/L	93-11726	
WNW0704	sulfide	05/04/94	ND < 1.00	1.00	mg/L	94-03455	

Appendix E

1993 CPCWSA Surface Soil Data

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Surface Soil Semivolatiles Analyte Data  
at the CPCWSA 4th Rd. 1993 and 2nd Rd. 1994

Location	Parameter	Samp_Date	Result	Units	Sample_ID	Flags
SS-01	acnphthe	09/16/93	ND 454.80	µg/kg	RFI-00203	
SS-01	acnphthy	09/16/93	ND 454.80	µg/kg	RFI-00203	
SS-01	anthracn	09/16/93	ND 454.80	µg/kg	RFI-00203	
SS-01	bis2ceth	09/16/93	ND 454.80	µg/kg	RFI-00203	
SS-01	bis2cexy	09/16/93	ND 454.80	µg/kg	RFI-00203	
SS-01	bis2clis	09/16/93	ND 454.80	µg/kg	RFI-00203	
SS-01	bis2ehex	09/16/93	ND 454.80	µg/kg	RFI-00203	
SS-01	bnz_a_an	09/16/93	ND 454.80	µg/kg	RFI-00203	
SS-01	bnz_a_py	09/16/93	ND 454.80	µg/kg	RFI-00203	
SS-01	bnz_b_fl	09/16/93	ND 454.80	µg/kg	RFI-00203	
SS-01	bnz_k_fl	09/16/93	ND 454.80	µg/kg	RFI-00203	
SS-01	bnzghipr	09/16/93	ND 454.80	µg/kg	RFI-00203	UJ
SS-01	brppeth4	09/16/93	ND 454.80	µg/kg	RFI-00203	
SS-01	butbnzph	09/16/93	ND 454.80	µg/kg	RFI-00203	
SS-01	carbazol	09/16/93	ND 454.80	µg/kg	RFI-00203	UJ
SS-01	chppeth4	09/16/93	ND 454.80	µg/kg	RFI-00203	
SS-01	chrysene	09/16/93	ND 454.80	µg/kg	RFI-00203	
SS-01	clnaphi2	09/16/93	ND 454.80	µg/kg	RFI-00203	
SS-01	clphen_2	09/16/93	ND 454.80	µg/kg	RFI-00203	
SS-01	dbahanth	09/16/93	ND 454.80	µg/kg	RFI-00203	
SS-01	dcb_33	09/16/93	ND 454.80	µg/kg	RFI-00203	
SS-01	dibnzfur	09/16/93	ND 454.80	µg/kg	RFI-00203	
SS-01	diclph24	09/16/93	ND 454.80	µg/kg	RFI-00203	
SS-01	diethyph	09/16/93	ND 454.80	µg/kg	RFI-00203	
SS-01	dimthp24	09/16/93	ND 454.80	µg/kg	RFI-00203	
SS-01	dimthyph	09/16/93	ND 454.80	µg/kg	RFI-00203	
SS-01	dinbutph	09/16/93	ND 454.80	µg/kg	RFI-00203	
SS-01	dinoctph	09/16/93	ND 454.80	µg/kg	RFI-00203	
SS-01	dintrp24	09/16/93	ND 1149.00	µg/kg	RFI-00203	UJ
SS-01	dintrt24	09/16/93	ND 454.80	µg/kg	RFI-00203	
SS-01	dintrt26	09/16/93	ND 454.80	µg/kg	RFI-00203	
SS-01	dntcr46	09/16/93	ND 1149.00	µg/kg	RFI-00203	
SS-01	flranthn	09/16/93	70.90	µg/kg	RFI-00203	J
SS-01	fluorene	09/16/93	ND 454.80	µg/kg	RFI-00203	
SS-01	hexclbnz	09/16/93	ND 454.80	µg/kg	RFI-00203	
SS-01	hexclbut	09/16/93	ND 454.80	µg/kg	RFI-00203	
SS-01	hexcleth	09/16/93	ND 454.80	µg/kg	RFI-00203	
SS-01	hexclpen	09/16/93	ND 454.80	µg/kg	RFI-00203	
SS-01	indnpyre	09/16/93	ND 454.80	µg/kg	RFI-00203	
SS-01	isophron	09/16/93	ND 454.80	µg/kg	RFI-00203	
SS-01	m_dclbnz	09/16/93	ND 454.80	µg/kg	RFI-00203	
SS-01	m_ntranl	09/16/93	ND 1149.00	µg/kg	RFI-00203	UJ
SS-01	mthynph2	09/16/93	ND 454.80	µg/kg	RFI-00203	
SS-01	naphthal	09/16/93	ND 454.80	µg/kg	RFI-00203	
SS-01	nntprhny	09/16/93	ND 454.80	µg/kg	RFI-00203	
SS-01	nntprpy	09/16/93	ND 454.80	µg/kg	RFI-00203	

Surface Soil Semivolatiles Analyte Data  
at the CPCWSA 4th Rd. 1993 and 2nd Rd. 1994

Location	Parameter	Samp_Date	Result	Units	Sample_ID	Flags
SS-01	ntrobenz	09/16/93	ND 454.80	μg/kg	RFI-00203	
SS-01	o_cresol	09/16/93	ND 454.80	μg/kg	RFI-00203	
SS-01	o_dclbnz	09/16/93	ND 454.80	μg/kg	RFI-00203	
SS-01	o_ntranl	09/16/93	ND 1149.00	μg/kg	RFI-00203	
SS-01	o_ntrphn	09/16/93	ND 454.80	μg/kg	RFI-00203	
SS-01	p_cresol	09/16/93	ND 454.80	μg/kg	RFI-00203	
SS-01	p_dclbnz	09/16/93	ND 454.80	μg/kg	RFI-00203	
SS-01	p_ntranl	09/16/93	ND 1149.00	μg/kg	RFI-00203	
SS-01	p_ntrphn	09/16/93	ND 1149.00	μg/kg	RFI-00203	UJ
SS-01	pclranil	09/16/93	ND 454.80	μg/kg	RFI-00203	UJ
SS-01	pclrmcrs	09/16/93	ND 454.80	μg/kg	RFI-00203	
SS-01	phenol	09/16/93	ND 454.80	μg/kg	RFI-00203	
SS-01	phnanthr	09/16/93	ND 454.80	μg/kg	RFI-00203	
SS-01	pntclphn	09/16/93	ND 1149.00	μg/kg	RFI-00203	
SS-01	pyrene	09/16/93	66.20	μg/kg	RFI-00203	J
SS-01	tcb_124	09/16/93	ND 454.80	μg/kg	RFI-00203	
SS-01	tc1ph245	09/16/93	ND 454.80	μg/kg	RFI-00203	
SS-01	tc1ph246	09/16/93	ND 454.80	μg/kg	RFI-00203	

Surface Soil Volatiles Analyte Data  
at the CPCWSA 4th Rd. 1993 and 2nd Rd. 1994

Location	Parameter	Samp_Date	Result	Units	Sample_ID	Flags
SS-01	toluene	09/16/93	600.000	µg/kg	RFI-00203	R

Surface Soil Metals Analyte Data at the CPCWSA  
4th Rd. 1993 and 2nd Rd. 1994

Location	Parameter	Samp_Date	Result	Units	Sample_ID	Flags
SS-01	Aluminum	09/16/93	14900000.00	µg/kg	RFI-00061	
SS-01	Antimony	09/16/93	ND 1700.00	µg/kg	RFI-00061	UJ
SS-01	Arsenic	09/16/93	989.00	µg/kg	RFI-00061	J
SS-01	Barium	09/16/93	48500.00	µg/kg	RFI-00061	
SS-01	Beryllium	09/16/93	325.00	µg/kg	RFI-00061	
SS-01	Cadmium	09/16/93	298.00	µg/kg	RFI-00061	
SS-01	Calcium	09/16/93	3130000.00	µg/kg	RFI-00061	
SS-01	Chromium	09/16/93	13200.00	µg/kg	RFI-00061	
SS-01	Cobalt	09/16/93	5520.00	µg/kg	RFI-00061	
SS-01	Copper	09/16/93	11800.00	µg/kg	RFI-00061	
SS-01	Iron	09/16/93	19100000.00	µg/kg	RFI-00061	
SS-01	Lead	09/16/93	17700.00	µg/kg	RFI-00061	
SS-01	Magnesium	09/16/93	2230000.00	µg/kg	RFI-00061	
SS-01	Manganese	09/16/93	439000.00	µg/kg	RFI-00061	J
SS-01	Mercury	09/16/93	63.10	µg/kg	RFI-00061	
SS-01	Nickel	09/16/93	10800.00	µg/kg	RFI-00061	
SS-01	Potassium	09/16/93	1240000.00	µg/kg	RFI-00061	
SS-01	Selenium	09/16/93	ND 136.00	µg/kg	RFI-00061	UJ
SS-01	Silver	09/16/93	425.00	µg/kg	RFI-00061	
SS-01	Sodium	09/16/93	75700.00	µg/kg	RFI-00061	
SS-01	Thallium	09/16/93	ND 136.00	µg/kg	RFI-00061	UJ
SS-01	Vanadium	09/16/93	22300.00	µg/kg	RFI-00061	
SS-01	Zinc	09/16/93	72000.00	µg/kg	RFI-00061	

## BACKGROUND

SS-11	Aluminum	11/15/93	4320000.00	µg/kg	RFI-00635	
SS-11	Antimony	11/15/93	3680.00	µg/kg	RFI-00635	J
SS-11	Arsenic	11/15/93	7270.00	µg/kg	RFI-00635	
SS-11	Barium	11/15/93	24600.00	µg/kg	RFI-00635	
SS-11	Beryllium	11/15/93	235.00	µg/kg	RFI-00635	
SS-11	Cadmium	11/15/93	ND 232.00	µg/kg	RFI-00635	
SS-11	Calcium	11/15/93	115000000.00	µg/kg	RFI-00635	
SS-11	Chromium	11/15/93	8300.00	µg/kg	RFI-00635	
SS-11	Cobalt	11/15/93	3630.00	µg/kg	RFI-00635	
SS-11	Copper	11/15/93	19000.00	µg/kg	RFI-00635	
SS-11	Iron	11/15/93	11600000.00	µg/kg	RFI-00635	J
SS-11	Lead	11/15/93	14400.00	µg/kg	RFI-00635	
SS-11	Magnesium	11/15/93	28800000.00	µg/kg	RFI-00635	
SS-11	Manganese	11/15/93	458000.00	µg/kg	RFI-00635	J
SS-11	Mercury	11/15/93	31.10	µg/kg	RFI-00635	
SS-11	Nickel	11/15/93	10700.00	µg/kg	RFI-00635	
SS-11	Potassium	11/15/93	724000.00	µg/kg	RFI-00635	
SS-11	Selenium	11/15/93	ND 1.20	µg/kg	RFI-00635	UJ
SS-11	Silver	11/15/93	ND 349.00	µg/kg	RFI-00635	
SS-11	Sodium	11/15/93	302000.00	µg/kg	RFI-00635	J

Surface Soil Metals Analyte Data at the CPCWSA  
4th Rd. 1993 and 2nd Rd. 1994

Location	Parameter	Samp_Date	Result	Units	Sample_ID	Flags
SS-11	Thallium	11/15/93	ND	594.00	$\mu\text{g}/\text{kg}$	RFI-00635
SS-11	Vanadium	11/15/93		7240.00	$\mu\text{g}/\text{kg}$	RFI-00635
SS-11	Zinc	11/15/93		189000.00	$\mu\text{g}/\text{kg}$	RFI-00635 J

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Appendix F  
1993 Borehole Boring Logs

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SHEET 1 OF: 2 DATE STARTED: 10/26/93 DATE FINISHED: 10/26/93 DRILLER: BUFFALO DRILLING CO. INSPECTOR: ROBERT H. TEIFKE	<h1 style="margin:0;">BORING LOG</h1> <h2 style="margin:0;">DAMES &amp; MOORE</h2>	BOREHOLE NO.: BH-38 SURFACE ELEVATION (FT.): 1,416.03 NORTHING: 893,383.75 EASTING: 480,195.17 LOCATION: WEST HAZ WASTE LOCKERS SSWMU Locale:
PROJECT: 1993 SOILS PROGRAM JOB NUMBER: 10805-827-8350		

DEPTH IN FEET	INCHES DRIVEN / RECOVERED	SAMPLE TYPE-NO.	BLOWS ON SAMPLER		LITHOLOGY	DESCRIPTION AND NOTES	
			0-6	6-12			
			12-18	18-24			
5	24/11	SS-1	25	37		Brown silty SAND and GRAVEL; dry, very dense. (SM/GM) (Hnu:<1.0ppm, beta/gamma:BB)	
			38	19			
	24/11	SS-2	6	7		Dark brown and gray pebbly slightly silty CLAY; damp, stiff. (CL) (Hnu:<1.0ppm, beta/gamma:BB)	
			6	7			
	As above. (0.4')						
	24/17	SS-3	4	7			Dark brown slightly clayey slightly pebbly SILT; with root masses, damp. (0.5') (ML) Yellow brown pebbly SILT and fine SAND; damp. (0.4') (Hnu:<1.0ppm, beta/gamma:BB) (ML)
8			15				
24/22	SS-4	22	25	Yellow brown silty sandy GRAVEL; damp, very dense. (Hnu:<1.0ppm, beta/gamma:BB) (GM)			
		26	37				
24/22	SS-5	33	34	Brown silty sandy pebble-cobble GRAVEL; damp to moist, very dense. (GM) (Hnu:<1.0ppm, beta/gamma:BB)			
		21	17				
As above.							
24/14	SS-6	12	27		As above. (0.4')		
		38	15				
24/19	SS-7	11	17		Brown silty CLAY, slightly pebbly; damp. (0.4') (CL) Brown gray silty CLAY, slightly pebbly; damp. (0.8') (CL) (Hnu:<1.0ppm, beta/gamma:BB)		
		32	43				
24/22	SS-8	11	20			Brown gray to gray slightly pebbly slightly silty CLAY; damp, hard. (CL) (Hnu:<1.0ppm, beta/gamma:BB)	
		29	39				
24/24	SS-9	9	15	Gray slightly pebbly slightly silty CLAY; moist, hard. (Hnu:<1.0ppm, beta/gamma:BB) (CL)			
		22	27				
As above.							
24/24	SS-10	6	11				
		18	22				

CLASSIFICATION: VISUAL (Modified Burmister) and USCS

METHOD OF SAMPLING: 140 LB. HAMMER  
3" O.D. SPLITSPOON SAMPLER

SHEET 2 OF: 2 DATE STARTED: 10/26/93 DATE FINISHED: 10/26/93 DRILLER: BUFFALO DRILLING CO.  INSPECTOR: ROBERT H. TEIFKE	<h1 style="margin:0;">BORING LOG</h1>  <h2 style="margin:0;">DAMES &amp; MOORE</h2>	BOREHOLE NO.: BH-38 SURFACE ELEVATION (FT.): 1,416.03  NORTHING: 893,383.75 EASTING: 480,195.17
PROJECT: 1993 SOILS PROGRAM JOB NUMBER: 10805-827-8350		LOCATION: WEST HAZ WASTE LOCKERS SSWMU Locale:

DEPTH IN FEET	INCHES DRIVEN / RECOVERED	SAMPLE TYPE-NO.	BLOWS ON SAMPLER		LITHOLOGY	DESCRIPTION AND NOTES
			0-6	6-12		
			12-18	18-24		
25	24/24	SS-11	4	11	LITHOLOGY	As above (1.1') Gray clayey coarse SILT and brown CLAY; saturated, very stiff. (0.9') (ML/CL) (Hnu:<1.0ppm, beta/gamma:BB)
			17	18		
	24/24	SS-12	5	11		Brown gray slightly pebbly silty CLAY; moist, very stiff. (CL) (Hnu:<1.0ppm, beta/gamma:BB)
			18	20		
	24/24	SS-13	7	12		Gray brown slightly pebbly silty CLAY; moist, very stiff. (CL) (Hnu:<1.0ppm, beta/gamma:BB)
			18	18		
	24/24	SS-14	10	10		Brown very slightly pebbly CLAY; moist to wet, very stiff. (CL) (Hnu:<1.0ppm, beta/gamma:BB)
			13	15		
	24/24	SS-15	5	6		Brown slightly pebbly silty CLAY; moist, stiff. (0.5') (CL) Gray brown very slightly pebbly clayey SILT and fine SAND, locally slightly clayey SILT and fine SAND; wet, stiff. (1.5') (ML/SM) (Hnu:<1.0ppm, beta/gamma:BB)
			9	10		
30						
35						AUGERED TO 28 FT. SAMPLED TO 30 FT. BOREHOLE BACKGROUND TO GRADE BACKGROUND READINGS: Hnu = <1.0ppm beta/gamma = 160cpm

CLASSIFICATION: VISUAL (Modified Burmister) and USCS

METHOD OF SAMPLING: 140 LB. HAMMER  
3" O.D. SPLITSPOON SAMPLER

SHEET 1 OF: 1 DATE STARTED: 10/28/93 DATE FINISHED: 10/28/93 DRILLER: BUFFALO DRILLING CO.  INSPECTOR: ROBERT H. TEIFKE	<h1 style="margin:0;">BORING LOG</h1>  <h2 style="margin:0;">DAMES &amp; MOORE</h2>	BOREHOLE NO.: BH-43 SURFACE ELEVATION (FT.): 1,388.96  NORTHING: 893,888.03 EASTING: 480,382.67  LOCATION: NORTH EAST CPC STORAGE SSWMU Locale:
PROJECT: 1993 SOILS PROGRAM JOB NUMBER: 10805-827-8350		

DEPTH IN FEET	INCHES DRIVEN / RECOVERED	SAMPLE TYPE-NO.	BLOWS ON SAMPLER		LITHOLOGY	DESCRIPTION AND NOTES	
			0-6	6-12			
			12-18	18-24			
5	24/24	SS-1	6	14	[Cross-hatched pattern]	Dark brown pebbly clayey SILT; moist. (0.4') (ML) Yellow brown pebbly silty CLAY; wet, very stiff. (1.3') (OVA:4ppm, beta/gamma:BB) (CL)	
			15	35			
	24/24	SS-2	18	18	[Dotted pattern]	Yellow brown angular pebble-cobble GRAVEL, with matrix of clayey silt; saturated, dense. (GM) (OVA:4ppm, beta/gamma:BB)	
			20	19			
	24/14	SS-3	11	10	[Dotted pattern]	As above. (0.7') Yellow brown clayey SILT, very slightly pebbly; moist. (0.3') (ML)	
			16	20			
	24/24	SS-4	6	12	[Diagonal hatched pattern]	Gray brown silty CLAY, slightly pebbly; moist to wet, medium dense. (CL) (OVA:4ppm, beta/gamma:BB)	
			20	32			
	10						AUGERED TO 6 FT. SAMPLED TO 8 FT. BOREHOLE BACKGROUTED TO GRADE BACKGROUND READINGS: OVA = 4ppm beta/gamma = 450cpm
15							

CLASSIFICATION: VISUAL (Modified Burmister) and USCS      METHOD OF SAMPLING: 140 LB. HAMMER  
 3" O.D. SPLITSPOON SAMPLER

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Appendix G

1993 CPCWSA Borehole Soil Data

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Soils Borehole Volatiles Data at the CPCWSA

Location	Parameter	Samp_Date	Result	Units	Sample_ID	QA_Flags	Depth	
BH-43	acetone	10/28/93	ND	11.00	µg/kg	RFI-00703	UJ	(02-04')
BH-43	benzene	10/28/93	ND	5.70	µg/kg	RFI-00703		(02-04')
BH-43	br_meth	10/28/93	ND	11.50	µg/kg	RFI-00703		(02-04')
BH-43	brdcmeth	10/28/93	ND	5.70	µg/kg	RFI-00703		(02-04')
BH-43	brform	10/28/93	ND	5.70	µg/kg	RFI-00703		(02-04')
BH-43	c_13_dcp	10/28/93	ND	5.70	µg/kg	RFI-00703		(02-04')
BH-43	ccl4	10/28/93	ND	5.70	µg/kg	RFI-00703		(02-04')
BH-43	cl_benz	10/28/93	ND	5.70	µg/kg	RFI-00703		(02-04')
BH-43	cl_eth	10/28/93	ND	11.50	µg/kg	RFI-00703	UJ	(02-04')
BH-43	cl_form	10/28/93	ND	5.70	µg/kg	RFI-00703		(02-04')
BH-43	cl_meth	10/28/93	ND	11.50	µg/kg	RFI-00703		(02-04')
BH-43	cs2	10/28/93	ND	5.70	µg/kg	RFI-00703	UJ	(02-04')
BH-43	dbc_meth	10/28/93	ND	5.70	µg/kg	RFI-00703		(02-04')
BH-43	dca_11	10/28/93	ND	5.70	µg/kg	RFI-00703		(02-04')
BH-43	dca_12	10/28/93	ND	5.70	µg/kg	RFI-00703		(02-04')
BH-43	dce_11	10/28/93	ND	5.70	µg/kg	RFI-00703		(02-04')
BH-43	dce_12_t	10/28/93	ND	5.70	µg/kg	RFI-00703		(02-04')
BH-43	dcp_12	10/28/93	ND	5.70	µg/kg	RFI-00703		(02-04')
BH-43	eth_benz	10/28/93	ND	5.70	µg/kg	RFI-00703		(02-04')
BH-43	hexnone2	10/28/93	ND	11.00	µg/kg	RFI-00703		(02-04')
BH-43	mek	10/28/93	ND	11.50	µg/kg	RFI-00703		(02-04')
BH-43	mene_cl	10/28/93		37.40	µg/kg	RFI-00703	UJ	(02-04')
BH-43	mibk	10/28/93	ND	11.50	µg/kg	RFI-00703		(02-04')
BH-43	styrene	10/28/93	ND	5.70	µg/kg	RFI-00703		(02-04')
BH-43	t_13_dcp	10/28/93	ND	5.70	µg/kg	RFI-00703		(02-04')
BH-43	tca_111	10/28/93	ND	5.70	µg/kg	RFI-00703		(02-04')
BH-43	tca_112	10/28/93	ND	5.70	µg/kg	RFI-00703		(02-04')
BH-43	tca_1122	10/28/93	ND	5.70	µg/kg	RFI-00703		(02-04')
BH-43	tetcleth	10/28/93	ND	5.70	µg/kg	RFI-00703		(02-04')
BH-43	toluene	10/28/93	ND	5.70	µg/kg	RFI-00703		(02-04')
BH-43	tricleth	10/28/93	ND	5.70	µg/kg	RFI-00703		(02-04')
BH-43	vnvl_cl	10/28/93	ND	11.50	µg/kg	RFI-00703		(02-04')
BH-43	xylene	10/28/93	ND	5.70	µg/kg	RFI-00703		(02-04')

## Soils Borehole Data at the CPCWSA

Location	Parameter	Samp_Date	Result	Units	Sample_ID	QA_Flags	Depth
BH-43	Aluminum	10/28/93	10200000.00	µg/kg	RFI-00746		(02-04')
BH-43	Antimony	10/28/93	4350.00	µg/kg	RFI-00746	J	(02-04')
BH-43	Arsenic	10/28/93	20700.00	µg/kg	RFI-00746		(02-04')
BH-43	Barium	10/28/93	79600.00	µg/kg	RFI-00746		(02-04')
BH-43	Beryllium	10/28/93	579.00	µg/kg	RFI-00746		(02-04')
BH-43	Cadmium	10/28/93	ND 228.00	µg/kg	RFI-00746		(02-04')
BH-43	Calcium	10/28/93	1140000.00	µg/kg	RFI-00746		(02-04')
BH-43	Chromium	10/28/93	10900.00	µg/kg	RFI-00746		(02-04')
BH-43	Cobalt	10/28/93	9290.00	µg/kg	RFI-00746		(02-04')
BH-43	Copper	10/28/93	34400.00	µg/kg	RFI-00746		(02-04')
BH-43	Iron	10/28/93	32500000.00	µg/kg	RFI-00746		(02-04')
BH-43	Lead	10/28/93	23600.00	µg/kg	RFI-00746		(02-04')
BH-43	Magnesium	10/28/93	3010000.00	µg/kg	RFI-00746		(02-04')
BH-43	Manganese	10/28/93	1450000.00	µg/kg	RFI-00746		(02-04')
BH-43	Mercury	10/28/93	24.70	µg/kg	RFI-00746		(02-04')
BH-43	Nickel	10/28/93	18900.00	µg/kg	RFI-00746		(02-04')
BH-43	Potassium	10/28/93	874000.00	µg/kg	RFI-00746		(02-04')
BH-43	Selenium	10/28/93	ND 228.00	µg/kg	RFI-00746	UJ	(02-04')
BH-43	Silver	10/28/93	ND 342.00	µg/kg	RFI-00746		(02-04')
BH-43	Sodium	10/28/93	52900.00	µg/kg	RFI-00746	J	(02-04')
BH-43	Thallium	10/28/93	ND 570.00	µg/kg	RFI-00746	UJ	(02-04')
BH-43	Vanadium	10/28/93	13700.00	µg/kg	RFI-00746		(02-04')
BH-43	Zinc	10/28/93	108000.00	µg/kg	RFI-00746		(02-04')

## BACKGROUND

BH-38	Aluminum	10/26/93	13900000.00	µg/kg	RFI-00668	J	(00-02')
BH-38	Aluminum	10/26/93	12500000.00	µg/kg	RFI-00669	J	(12-14')
BH-38	Aluminum	10/26/93	14000000.00	µg/kg	RFI-00670	J	(26-28')
BH-38	Antimony	10/26/93	2540.00	µg/kg	RFI-00668	J	(00-02')
BH-38	Antimony	10/26/93	2040.00	µg/kg	RFI-00669	J	(12-14')
BH-38	Antimony	10/26/93	2280.00	µg/kg	RFI-00670	J	(26-28')
BH-38	Arsenic	10/26/93	5350.00	µg/kg	RFI-00668	J	(00-02')
BH-38	Arsenic	10/26/93	6060.00	µg/kg	RFI-00669	J	(12-14')
BH-38	Arsenic	10/26/93	5090.00	µg/kg	RFI-00670	J	(26-28')
BH-38	Barium	10/26/93	105000.00	µg/kg	RFI-00668		(00-02')
BH-38	Barium	10/26/93	139000.00	µg/kg	RFI-00669		(12-14')
BH-38	Barium	10/26/93	151000.00	µg/kg	RFI-00670		(26-28')
BH-38	Beryllium	10/26/93	657.00	µg/kg	RFI-00668		(00-02')
BH-38	Beryllium	10/26/93	602.00	µg/kg	RFI-00669		(12-14')
BH-38	Beryllium	10/26/93	691.00	µg/kg	RFI-00670		(26-28')
BH-38	Cadmium	10/26/93	ND 228.00	µg/kg	RFI-00668		(00-02')
BH-38	Cadmium	10/26/93	ND 226.00	µg/kg	RFI-00669		(12-14')
BH-38	Cadmium	10/26/93	ND 247.00	µg/kg	RFI-00670		(26-28')
BH-38	Calcium	10/26/93	29400000.00	µg/kg	RFI-00668	J	(00-02')
BH-38	Calcium	10/26/93	17400000.00	µg/kg	RFI-00669	J	(12-14')

## Soils Borehole Data at the CPCWSA

Location	Parameter	Samp_Date	Result	Units	Sample_ID	QA_Flags	Depth
BH-38	Calcium	10/26/93	29400000.00	µg/kg	RFI-00670	J	(26-28')
BH-38	Chromium	10/26/93	17900.00	µg/kg	RFI-00668	J	(00-02')
BH-38	Chromium	10/26/93	16000.00	µg/kg	RFI-00669		(12-14')
BH-38	Chromium	10/26/93	19700.00	µg/kg	RFI-00670	J	(26-28')
BH-38	Cobalt	10/26/93	11500.00	µg/kg	RFI-00668		(00-02')
BH-38	Cobalt	10/26/93	11200.00	µg/kg	RFI-00669		(12-14')
BH-38	Cobalt	10/26/93	13200.00	µg/kg	RFI-00670		(26-28')
BH-38	Copper	10/26/93	20500.00	µg/kg	RFI-00668		(00-02')
BH-38	Copper	10/26/93	24800.00	µg/kg	RFI-00669		(12-14')
BH-38	Copper	10/26/93	23500.00	µg/kg	RFI-00670		(26-28')
BH-38	Iron	10/26/93	25200000.00	µg/kg	RFI-00668	J	(00-02')
BH-38	Iron	10/26/93	26800000.00	µg/kg	RFI-00669	J	(12-14')
BH-38	Iron	10/26/93	28000000.00	µg/kg	RFI-00670	J	(26-28')
BH-38	Lead	10/26/93	14200.00	µg/kg	RFI-00668		(00-02')
BH-38	Lead	10/26/93	14000.00	µg/kg	RFI-00669		(12-14')
BH-38	Lead	10/26/93	16700.00	µg/kg	RFI-00670		(26-28')
BH-38	Magnesium	10/26/93	10800000.00	µg/kg	RFI-00668	J	(00-02')
BH-38	Magnesium	10/26/93	6050000.00	µg/kg	RFI-00669	J	(12-14')
BH-38	Magnesium	10/26/93	10800000.00	µg/kg	RFI-00670	J	(26-28')
BH-38	Manganese	10/26/93	476000.00	µg/kg	RFI-00668	J	(00-02')
BH-38	Manganese	10/26/93	486000.00	µg/kg	RFI-00669	J	(12-14')
BH-38	Manganese	10/26/93	433000.00	µg/kg	RFI-00670	J	(26-28')
BH-38	Mercury	10/26/93	18.20	µg/kg	RFI-00668		(00-02')
BH-38	Mercury	10/26/93	19.70	µg/kg	RFI-00669		(12-14')
BH-38	Mercury	10/26/93	21.20	µg/kg	RFI-00670		(26-28')
BH-38	Nickel	10/26/93	27300.00	µg/kg	RFI-00668		(00-02')
BH-38	Nickel	10/26/93	27000.00	µg/kg	RFI-00669		(12-14')
BH-38	Nickel	10/26/93	32600.00	µg/kg	RFI-00670		(26-28')
BH-38	Potassium	10/26/93	2980000.00	µg/kg	RFI-00668		(00-02')
BH-38	Potassium	10/26/93	1700000.00	µg/kg	RFI-00669		(12-14')
BH-38	Potassium	10/26/93	2580000.00	µg/kg	RFI-00670		(26-28')
BH-38	Selenium	10/26/93	ND 114.00	µg/kg	RFI-00668	UJ	(00-02')
BH-38	Selenium	10/26/93	ND 107.00	µg/kg	RFI-00669	UJ	(12-14')
BH-38	Selenium	10/26/93	ND 125.00	µg/kg	RFI-00670	UJ	(26-28')
BH-38	Silver	10/26/93	ND 342.00	µg/kg	RFI-00668		(00-02')
BH-38	Silver	10/26/93	ND 339.00	µg/kg	RFI-00669		(12-14')
BH-38	Silver	10/26/93	ND 370.00	µg/kg	RFI-00670		(26-28')
BH-38	Sodium	10/26/93	136000.00	µg/kg	RFI-00668	J	(00-02')
BH-38	Sodium	10/26/93	76200.00	µg/kg	RFI-00669		(12-14')
BH-38	Sodium	10/26/93	127000.00	µg/kg	RFI-00670	J	(26-28')
BH-38	Thallium	10/26/93	ND 114.00	µg/kg	RFI-00668	UJ	(00-02')
BH-38	Thallium	10/26/93	ND 107.00	µg/kg	RFI-00669	UJ	(12-14')
BH-38	Thallium	10/26/93	ND 125.00	µg/kg	RFI-00670	UJ	(26-28')
BH-38	Vanadium	10/26/93	21300.00	µg/kg	RFI-00668	J	(00-02')
BH-38	Vanadium	10/26/93	16900.00	µg/kg	RFI-00669	J	(12-14')
BH-38	Vanadium	10/26/93	20900.00	µg/kg	RFI-00670	J	(26-28')

Soils Borehole Data at the CPCWSA

Location	Parameter	Samp_Date	Result	Units	Sample_ID	QA_Flags	Depth
BH-38	Zinc	10/26/93	60000.00	μg/kg	RFI-00668	J	(00-02')
BH-38	Zinc	10/26/93	80000.00	μg/kg	RFI-00669	J	(12-14')
BH-38	Zinc	10/26/93	65800.00	μg/kg	RFI-00670	J	(26-28')

Appendix H  
1993 CPCWSA Stream Sediment Data

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Stream Sediment Semivolatiles Analyte Data  
 at the CPCWSA

Location	Parameter	Samp_Date	Result	Units	Sample_ID	Flags
ST-04	acnphthe	09/08/93	ND 331.70	µg/kg	RFI-00146	
ST-04	acnphthy	09/08/93	ND 331.70	µg/kg	RFI-00146	
ST-04	anthracn	09/08/93	ND 331.70	µg/kg	RFI-00146	
ST-04	bis2ceth	09/08/93	ND 331.70	µg/kg	RFI-00146	
ST-04	bis2cexy	09/08/93	ND 331.70	µg/kg	RFI-00146	
ST-04	bis2clis	09/08/93	ND 331.70	µg/kg	RFI-00146	
ST-04	bis2ehex	09/08/93	ND 331.70	µg/kg	RFI-00146	
ST-04	bnz_a_an	09/08/93	ND 331.70	µg/kg	RFI-00146	
ST-04	bnz_a_py	09/08/93	ND 331.70	µg/kg	RFI-00146	
ST-04	bnz_b_fl	09/08/93	ND 331.70	µg/kg	RFI-00146	
ST-04	bnz_k_fl	09/08/93	ND 331.70	µg/kg	RFI-00146	
ST-04	bnzghipr	09/08/93	ND 331.70	µg/kg	RFI-00146	
ST-04	brppeth4	09/08/93	ND 331.70	µg/kg	RFI-00146	
ST-04	butbnzph	09/08/93	ND 331.70	µg/kg	RFI-00146	
ST-04	carbazol	09/08/93	ND 331.70	µg/kg	RFI-00146	
ST-04	chppeth4	09/08/93	ND 331.70	µg/kg	RFI-00146	UJ
ST-04	chrysene	09/08/93	ND 331.70	µg/kg	RFI-00146	
ST-04	clnapht2	09/08/93	ND 331.70	µg/kg	RFI-00146	
ST-04	clphen_2	09/08/93	ND 331.70	µg/kg	RFI-00146	
ST-04	dbahanth	09/08/93	ND 331.70	µg/kg	RFI-00146	
ST-04	dc_b_33	09/08/93	ND 331.70	µg/kg	RFI-00146	
ST-04	dibnzfur	09/08/93	ND 331.70	µg/kg	RFI-00146	
ST-04	diclph24	09/08/93	ND 331.70	µg/kg	RFI-00146	
ST-04	diethyph	09/08/93	ND 331.70	µg/kg	RFI-00146	
ST-04	dimthp24	09/08/93	ND 331.70	µg/kg	RFI-00146	
ST-04	dimthyph	09/08/93	ND 331.70	µg/kg	RFI-00146	
ST-04	dinbutph	09/08/93	ND 331.70	µg/kg	RFI-00146	
ST-04	dinoctph	09/08/93	ND 331.70	µg/kg	RFI-00146	
ST-04	dintrp24	09/08/93	ND 837.50	µg/kg	RFI-00146	UJ
ST-04	dintrt24	09/08/93	ND 331.70	µg/kg	RFI-00146	
ST-04	dintrt26	09/08/93	ND 331.70	µg/kg	RFI-00146	
ST-04	dntcr46	09/08/93	ND 837.50	µg/kg	RFI-00146	
ST-04	flranthn	09/08/93	ND 331.70	µg/kg	RFI-00146	
ST-04	fluorene	09/08/93	ND 331.70	µg/kg	RFI-00146	UJ
ST-04	hexclbnz	09/08/93	ND 331.70	µg/kg	RFI-00146	
ST-04	hexclbut	09/08/93	ND 331.70	µg/kg	RFI-00146	
ST-04	hexcleth	09/08/93	ND 331.70	µg/kg	RFI-00146	
ST-04	hexclpen	09/08/93	ND 331.70	µg/kg	RFI-00146	
ST-04	indnpyre	09/08/93	ND 331.70	µg/kg	RFI-00146	
ST-04	isophron	09/08/93	ND 331.70	µg/kg	RFI-00146	
ST-04	m_dclbnz	09/08/93	ND 331.70	µg/kg	RFI-00146	
ST-04	m_ntranl	09/08/93	ND 837.50	µg/kg	RFI-00146	
ST-04	methynph2	09/08/93	ND 331.70	µg/kg	RFI-00146	
ST-04	naphthal	09/08/93	ND 331.70	µg/kg	RFI-00146	
ST-04	nntprhny	09/08/93	ND 331.70	µg/kg	RFI-00146	

Stream Sediment Semivolatiles Analyte Data  
 at the CPCWSA

Location	Parameter	Samp_Date	Result	Units	Sample_ID	Flags
ST-04	nntrprpy	09/08/93	ND 331.70	µg/kg	RFI-00146	
ST-04	ntrobenz	09/08/93	ND 331.70	µg/kg	RFI-00146	
ST-04	o_cresol	09/08/93	ND 331.70	µg/kg	RFI-00146	
ST-04	o_dclbnz	09/08/93	ND 331.70	µg/kg	RFI-00146	
ST-04	o_ntranl	09/08/93	ND 837.50	µg/kg	RFI-00146	
ST-04	o_ntrphn	09/08/93	ND 331.70	µg/kg	RFI-00146	
ST-04	p_cresol	09/08/93	ND 331.70	µg/kg	RFI-00146	
ST-04	p_dclbnz	09/08/93	ND 331.70	µg/kg	RFI-00146	
ST-04	p_ntranl	09/08/93	ND 837.50	µg/kg	RFI-00146	
ST-04	p_ntrphn	09/08/93	ND 837.50	µg/kg	RFI-00146	
ST-04	pclranyl	09/08/93	ND 331.70	µg/kg	RFI-00146	
ST-04	pclrmcrs	09/08/93	ND 331.70	µg/kg	RFI-00146	
ST-04	phenol	09/08/93	ND 331.70	µg/kg	RFI-00146	
ST-04	phnanthr	09/08/93	ND 331.70	µg/kg	RFI-00146	
ST-04	pntclphn	09/08/93	ND 837.50	µg/kg	RFI-00146	
ST-04	pntdecan	09/08/93	600.00	µg/kg	RFI-00146	J
ST-04	pyrene	09/08/93	ND 331.70	µg/kg	RFI-00146	
ST-04	tcb_124	09/08/93	ND 331.70	µg/kg	RFI-00146	
ST-04	tclph245	09/08/93	ND 331.70	µg/kg	RFI-00146	
ST-04	tclph246	09/08/93	ND 331.70	µg/kg	RFI-00146	

Stream Sediment Metals Analyte Data  
at the CPCWSA

Location	Parameter	Samp_Date	Result	Units	Sample_ID	Flags
ST-04	Aluminum	08/31/93	7670000.00	µg/kg	RFI-00159	
ST-04	Antimony	08/31/93	11900.00	µg/kg	RFI-00159	J
ST-04	Arsenic	08/31/93	9000.00	µg/kg	RFI-00159	
ST-04	Barium	08/31/93	83300.00	µg/kg	RFI-00159	
ST-04	Beryllium	08/31/93	410.00	µg/kg	RFI-00159	
ST-04	Cadmium	08/31/93	ND 220.00	µg/kg	RFI-00159	
ST-04	Calcium	08/31/93	15300000.00	µg/kg	RFI-00159	
ST-04	Chromium	08/31/93	11300.00	µg/kg	RFI-00159	
ST-04	Cobalt	08/31/93	8800.00	µg/kg	RFI-00159	
ST-04	Copper	08/31/93	16300.00	µg/kg	RFI-00159	
ST-04	Iron	08/31/93	18600000.00	µg/kg	RFI-00159	
ST-04	Lead	08/31/93	10100.00	µg/kg	RFI-00159	
ST-04	Magnesium	08/31/93	5660000.00	µg/kg	RFI-00159	
ST-04	Manganese	08/31/93	505000.00	µg/kg	RFI-00159	
ST-04	Mercury	08/31/93	ND 70.00	µg/kg	RFI-00159	
ST-04	Nickel	08/31/93	18800.00	µg/kg	RFI-00159	
ST-04	Potassium	08/31/93	1410000.00	µg/kg	RFI-00159	
ST-04	Selenium	08/31/93	210.00	µg/kg	RFI-00159	
ST-04	Silver	08/31/93	ND 340.00	µg/kg	RFI-00159	
ST-04	Sodium	08/31/93	82800.00	µg/kg	RFI-00159	
ST-04	Thallium	08/31/93	120.00	µg/kg	RFI-00159	UJ
ST-04	Vanadium	08/31/93	13300.00	µg/kg	RFI-00159	
ST-04	Zinc	08/31/93	51000.00	µg/kg	RFI-00159	
ST-05	Aluminum	08/31/93	7580000.00	µg/kg	RFI-00163	
ST-05	Antimony	08/31/93	3200.00	µg/kg	RFI-00163	J
ST-05	Arsenic	08/31/93	12400.00	µg/kg	RFI-00163	
ST-05	Barium	08/31/93	49500.00	µg/kg	RFI-00163	
ST-05	Beryllium	08/31/93	420.00	µg/kg	RFI-00163	
ST-05	Cadmium	08/31/93	ND 250.00	µg/kg	RFI-00163	
ST-05	Calcium	08/31/93	4670000.00	µg/kg	RFI-00163	
ST-05	Chromium	08/31/93	11200.00	µg/kg	RFI-00163	
ST-05	Cobalt	08/31/93	7300.00	µg/kg	RFI-00163	
ST-05	Copper	08/31/93	11000.00	µg/kg	RFI-00163	
ST-05	Iron	08/31/93	20900000.00	µg/kg	RFI-00163	
ST-05	Lead	08/31/93	10100.00	µg/kg	RFI-00163	
ST-05	Magnesium	08/31/93	3190000.00	µg/kg	RFI-00163	
ST-05	Manganese	08/31/93	333000.00	µg/kg	RFI-00163	
ST-05	Mercury	08/31/93	ND 90.00	µg/kg	RFI-00163	
ST-05	Nickel	08/31/93	15500.00	µg/kg	RFI-00163	
ST-05	Potassium	08/31/93	978000.00	µg/kg	RFI-00163	
ST-05	Selenium	08/31/93	ND 120.00	µg/kg	RFI-00163	
ST-05	Silver	08/31/93	ND 370.00	µg/kg	RFI-00163	
ST-05	Sodium	08/31/93	60700.00	µg/kg	RFI-00163	
ST-05	Thallium	08/31/93	ND 120.00	µg/kg	RFI-00163	UJ

Stream Sediment Metals Analyte Data  
at the CPCWSA

Location	Parameter	Samp_Date	Result	Units	Sample_ID	Flags
ST-05	Vanadium	08/31/93	10800.00	µg/kg	RFI-00163	
ST-05	Zinc	08/31/93	54000.00	µg/kg	RFI-00163	
<b>BACKGROUND</b>						
ST-06	Aluminum	09/07/93	11000000.00	µg/kg	RFI-00221	J
ST-06	Antimony	09/07/93	3010.00	µg/kg	RFI-00221	
ST-06	Arsenic	09/07/93	6880.00	µg/kg	RFI-00221	
ST-06	Barium	09/07/93	84800.00	µg/kg	RFI-00221	
ST-06	Beryllium	09/07/93	554.00	µg/kg	RFI-00221	
ST-06	Cadmium	09/07/93	ND 295.00	µg/kg	RFI-00221	
ST-06	Calcium	09/07/93	3960000.00	µg/kg	RFI-00221	J
ST-06	Chromium	09/07/93	14900.00	µg/kg	RFI-00221	
ST-06	Cobalt	09/07/93	9530.00	µg/kg	RFI-00221	
ST-06	Copper	09/07/93	19900.00	µg/kg	RFI-00221	
ST-06	Iron	09/07/93	25400000.00	µg/kg	RFI-00221	J
ST-06	Lead	09/07/93	11200.00	µg/kg	RFI-00221	
ST-06	Magnesium	09/07/93	4040000.00	µg/kg	RFI-00221	J
ST-06	Manganese	09/07/93	506000.00	µg/kg	RFI-00221	J
ST-06	Mercury	09/07/93	ND 101.00	µg/kg	RFI-00221	
ST-06	Nickel	09/07/93	23200.00	µg/kg	RFI-00221	
ST-06	Potassium	09/07/93	1520000.00	µg/kg	RFI-00221	
ST-06	Selenium	09/07/93	ND 147.00	µg/kg	RFI-00221	
ST-06	Silver	09/07/93	ND 442.00	µg/kg	RFI-00221	
ST-06	Sodium	09/07/93	86200.00	µg/kg	RFI-00221	J
ST-06	Thallium	09/07/93	ND 147.00	µg/kg	RFI-00221	
ST-06	Vanadium	09/07/93	15900.00	µg/kg	RFI-00221	
ST-06	Zinc	09/07/93	66900.00	µg/kg	RFI-00221	J